THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE 1914.

PUBLISHED FOR
THE UNIVERSITIES BUREAU OF THE BRITISH EMPIRE

P. T. I. BOOK DEPOT, CHAMARAJAPET, BANGALORE CITY.

S. SRIKANTAIYA & CO.,
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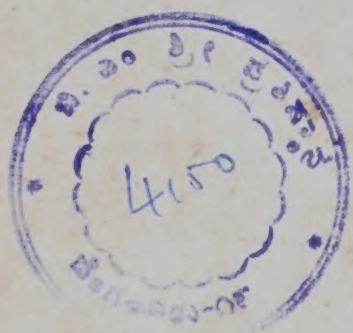
(S. Srikantaiya)



S. SRIKANTAIYA, B.A., B.L.
ADVOCATE, BANGALORE CITY.

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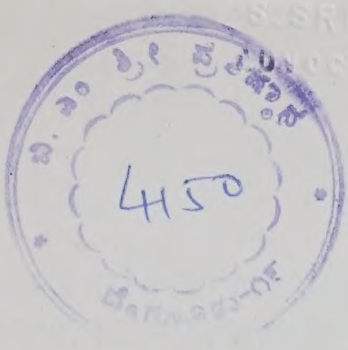

THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

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THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

1914

EDITED BY W. H. DAWSON, I.C.S.,
AND PUBLISHED FOR THE
UNIVERSITIES BUREAU OF
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PREFACE

THE CONGRESS which met in London in July 1912 was attended by delegates of all the fifty-three Universities of the Empire. At their final meeting the delegates resolved that it is desirable that a bureau should be established in London, maintained by contributions from the several Universities, for the purpose of disseminating information upon all matters of common interest. Amongst the duties specifically assigned to the Bureau were those of making arrangements for the assembling of a Congress at intervals of five years and the publication of a Yearbook. For the rest, it was to undertake such duties as may be suggested to it by the Universities from time to time.

The Director of the Imperial Institute most kindly acceded to the request of the Committee by providing accommodation for the office of the Bureau within the building under his charge. In this office the work of the Bureau has been carried on since the commencement of the current year. A considerable number of inquiries have been addressed to the Secretary by Universities, learned societies, and individuals, and various returns of information have been prepared.

In compiling the Yearbook the Committee have had in view the preparation of a conspectus of the Calendars of the several Universities which will present a series of pictures of their various activities. Their object has been to prepare a book of use both to persons responsible for university organization and to students, especially advanced students, who are looking out for opportunities of study and research. These comparative presentations will, it is hoped, enable the authorities of Universities to see at a glance what is being done elsewhere. To the student they will display the fields of knowledge which the several Universities especially cultivate. The record of outstanding events in the lives of the Universities during the academic year which has recently closed, and of changes in their personnel, will serve as materials for their history.

For authoritative information reference must of course be made to the official publications of the several Universities. Every endeavour has been made to ensure accuracy in the summaries prepared for the Yearbook, but errors may, not improbably, have escaped detection. This is the more likely seeing that, owing to want of time, it was not found possible to submit the drafts of all the sections to the Correspondents of the Bureau.

In subsequent issues it is proposed to extend, and, as far as possible,

to render complete, the appendices in which information is given relating to the careers open to university men and the regulations which govern admission to the Army, the Church, Law, Medicine, Engineering, Architecture, the Teaching Profession, the Civil Service, &c., both in the United Kingdom and in the King's Dominions overseas.

ALEX HILL

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THE YEARBOOK OF THE UNIVERSITIES OF THE EMPIRE

UNIVERSITY OF ABERDEEN

[Wherein were incorporated with effect from Sept. 15, 1860, under Act 21 and 22 Vict. cap. 83, 1858, the "University and King's College of Aberdeen" and "Marischal College and University of Aberdeen."]

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FINDLAY, W. M. Asst.

Agricultural Botany

CLARK, R. M., B.SC. Asst.

Agricultural Chemistry

HENDRICK, J., B.SC. Strathcona-Fordyce Prof.

GLEGG, R., B.SC. Asst.

HILL, A., B.SC. Asst.

(v. also *Forestry*, *Vet. Hyg.*, and *Nat. Hist.*)

ANATOMY (v. also *Embryol.*)

REID, R. W., M.D., F.R.C.S. Prof.

CALDER, N. J., M.A., M.B., CH.B. Asst.

RIDDOCH, G., M.B., CH.B. Asst.

ARCHÆOLOGY, v. *History*

BIOLOGY, v. *Natural History*

BIOCHEMISTRY

EDIE, E. S., M.A., B.SC. Lectr.

BOTANY (v. also *Agric. Bot.* and *Natural Hist.*)

TRAIL, J. W. H., M.A., M.D. Prof.

FENTON, E. W., M.A., B.SC. Asst.

SKENE, MACG., B.SC. Asst., & Lectr. in *Vegetable Physiol.*

CHEMISTRY

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WILLIAMSON, W. T. H., B.SC. Asst.

KNOX, J., D.SC. Asst. and Lectr. in *Advanced Inorganic Chem.*

Physical Chemistry

GRAY, F. W., M.A., D.SC. Lectr.

(v. also *Agric. Chem.* and *Biochem.*)

EDUCATION

CLARKE, J., M.A. Lectr.

ELOCUTION
MACLEOD, A. Lectr.

EMBRYOLOGY
LOW, A., M.A., M.D. Lectr.

ENGINEERING Field Work
GIBSON, T. H. Asst.

FORESTRY
LESLIE, PETER, M.A., B.SC. Lectr.

GEOLOGY
GIBB, A. W., M.A., D.SC. Lectr.
NEWLANDS, G., M.A., B.SC. Asst.

HISTORY and Archæology
TERRY, C. S., M.A. Burnett-Fletcher Prof.
BEAVEN, M. L. R., B.A. Asst., and Lectr. in *Mod. Hist.*
(v. also *Law* and *Theol.*)

LANGUAGES and Literature
English [Chalmers Prof. of *E. Lit.*
GRIERSON, H. J. C., M.A., LL.D.
MILLER, H. M., M.A. Asst. & Lectr.
HENDERSON, J. M., M.A. Asst.
CAMPBELL, F. E. A., PH.D. Lectr. in *E. Lang.*
French
SCHOLLE, W., PH.D. Lectr.
DESSEIGNET, J., L.-ÈS-L., D.-ÈS-S. Asst.
German
LEES, J., M.A., D.LITT. Lectr.
SCHOLZ, HELENE Asst.
Greek
HARROWER, J., M.A., LL.D. Prof.
COOK, J., M.A. Asst.
MACDONALD, JOHN, M.A. Asst., and Lectr. in *G. Hist.*
Hebrew and Semitic Langs.
GILROY, J., M.A., D.D. Prof.
Latin [*Humanity.*
SOUTER, A., M.A., D.LITT. Prof. of
FRASER, J., M.A. Asst., and Lectr. in *Comp. Philol.*, &c.
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MILNE, A., M.A. Asst.

LAW
Scots Law, Roman Law, Jurisprudence
IRVINE, J. M., K.C., LL.B. Prof.
Const. Law and Hist. [Lectr.
WILLIAMSON, R. W., M.A., LL.B.
Conveyancing
DUGUID, J., M.A. Lectr.
Law and Conveyancing
ESSLEMONT, W. D., M.A., B.L. Asst.
MASSON, R. P., M.A., B.L. (Tutor) ,,
International Law (Public and Private)
DUNCAN, G., M.A. Lectr.
Procedure and Evidence
BLACKLAW, A., M.A. Clark Law Lectr.
(v. also *Med.—Forensic*)

LOGIC
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RAE, G., B.SC. Asst.

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Forensic Medicine
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WATT, J., M.A., M.B., CH.B. Asst. and Lectr.
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CROLL, W. F., M.A., M.D. Asst.
DILLING, W. J., M.B., CH.B. Lectr. and Asst.
Medicine
MACKINTOSH, A. W., M.A., M.D. Prof.
FALCONER, A. W., M.B., CH.B. Asst.
Midwifery
MCKERRON, R. G., M.A., M.D. Prof.
MITCHELL, A., M.A., M.B., CH.M. Asst.

Pathology [Sir E. Wilson Prof.
DEAN, G., M.A., M.B., C.M.
DUNCAN, G. M., M.B., C.M. (Lectr. in *Bact.*) Asst. and Lectr.
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MUTERER, J. G., M.B., CH.B. Special Asst. and Lectr.

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Surgery
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COLT, G. H., F.R.C.S. Asst.

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RENNIE, J., D.SC. (Lectr. in *Parasitology*) Asst.
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FULTON, T. A. W., M.D. Lectr.

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TURNER, J., M.A. Asst.

PHILOSOPHY, Natural (v. also *Chem.—Phys.*)
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BROWN, WM. Lectr.

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GENERAL INFORMATION (*v. also* Appendix VI)

FACULTIES. Arts, Science (including Agric.), Divinity, Law, Medicine (including Pub. Health).

MATRICULATION is effected by signing in the "Album" and paying a fee and enrolling as a student of one or more Univ. classes.

Candidates for degrees must, before entering on their degree course, pass or obtain exemption from the Prelim. examn. (*see* Appendix IV).

SESSIONS, 1913–14. Terms in Arts begin: Winter—Oct. 8, Spring—Jan. 6, Summer—April 14. Winter Session in Science and Med.—Oct. 9 to March 12; in Law—Oct. 15 to March 13. Summer Sessions in Science, Law, and Med. begin April 14. Divinity Session—Oct. 8 to March 11.

DEGREES. Arts — M.A., D.Phil., D.Litt.; Science — B.Sc., B.Sc.Agr., D.Sc.; Divinity—B.D.; Law—B.L., LL.B.; Medicine—M.B., Ch.B., M.D., Ch.M. Diplomas: Public Health, Agric.

Honorary Degrees. D.D., LL.D.

COURSES AND EXAMINATIONS. *Arts.* The courses are organized in the following Depts.: Lang. and Lit., Ment. Philos., Science, Hist. and Law. For the purpose of reckoning duration of study an academic year is constituted by attendance on at least 1 course of study in each of the 3 terms. As in other Scottish Univs., there is no B.A. degree. The M.A. course extends over 3 yrs. A candidate for the degree must present a certif. not only of regular attendance, but also of having duly performed the work of the classes in the qualifying courses. The first 2 yrs. may be taken in other Scottish Univs. The Senatus may accept attendance during 1 yr. in other Univs. specially recognized, provided that qualifying classes for at least 2 yrs. are attended in Aberdeen. The Senatus may admit *ad eundem gradum* a M.A. of another Univ. who is of distinguished merit or has been appointed to an academic office in this Univ. A course for the ordinary degree must include subjects from 3 of the 4 Depts. above mentioned.

Science. The courses in *Pure Science* cover 3 yrs. Seven courses must be taken, of which 4 must be taken in the Univ. The other 3 may be taken in other Univs. of the U.K. or Colls. affiliated thereto or under recognized teachers.

Agriculture. Six out of the 12 courses required for the B.Sc.Agr., including the "Principles of Agric.," must be taken in the Univ.; the rest of them in any approved institns. or under recognized teachers. Residence and practical work on a farm for a complete farming year are required. The course for the Diploma covers 2 winter sessions. Candidates are required to pass a Prelim. examn. in Engl. and Maths. The examn. papers in the subjects for the Diploma are the same as for the Degree. The Univ. lectrs. in subjects qualifying for the Degree have been appointed as Lectrs. in the North of Scotland Agric. Coll.

Divinity. The B.D. examn. is open to (1) a grad. in Arts of this Univ. who has taken a complete Theol. course in a Scot. Univ. or other specially recognized institn.; (2) a grad. in Arts of any Scot. or other specially recognized Univ. who has completed his Theol. course, of which not less than 2 yrs. has been in this Univ. The Gifford Lectures on Nat. Theol. are open to the public.

Law. The course for the B.L. covers 3 yrs., of which 2 must be spent in this Univ. Before entering on the course a student must have passed the Arts Prelim. examn. or its equivalent, Latin being one of the subjects. The course for the LL.B. also covers 3 yrs., but only 1 need be spent in this Univ. Candidates for this degree must be grads. in Arts of a Univ. of the U.K. or of any other Univ. specially recognized. Either degree (the B.L. or LL.B.) exempts *pro tanto* from the examns. in Law required for admission to the profession of Law Agent.

Medicine and Surgery. The M.B. and Ch.B. must be taken together. Of the necessary 5 yrs. of medical study 2 must be spent at the Univ.

The other 3 may be spent in any Univ. of the U.K. or other recognized institn.* or under a recognized Teacher. The prescribed Prelim. examn. must have been passed or exemption obtained before entering on the course. Among the conditions imposed on candidates for the Medical degrees are: attendance for 3 yrs. or 9 terms at Med. and Surg. hospl. practice; courses in Clin. Med. and Clin. Surg., each extending over 9 mos. or 3 terms; attendance during 6 mos. or 2 terms at out-patient practice; service for 6 mos. or 2 terms as Dresser and 6 mos. or 2 terms as Clin. Clerk; practical instruction in Operative Surgery, Ophth., Dis. of Ear, Nose, and Throat, and Dermatology.

A candidate who has at any Univ. of the U.K. or at any other specially recognized (viz. the Indian Univs., Adel., Cape, Dal., McG., Manit., Melb., N.Z., Qu. (Can.), Syd., Tor.) completed a course and passed examn. in (1) Bot., Zool., Biol., Phys., or Chem. qualifying for a degree in Science, Arts, or Med., or (2) Anat. or Physiol. qualifying for a degree in Science, may be exempted by the Senatus from the corresponding part of the M.B., Ch.B. examns.

A M.B. or Ch.B. of at least 24 years of age who has subsequent to graduation been engaged for at least 1 yr. in attending the Med. (or Surg.) wards of a hospl., or in scientific work, or in the Naval, Milit., Colonial, or (for the M.D.) Pub. Health Med. Services, or 2 yrs. in practice not restricted to Surg. (or Med.), and passed the prescribed examn. and submitted a satisfactory thesis, may be admitted M.D. or Ch.M., as the case may be.

The Diploma in Pub. Health is open to grads. in Med. of any Univ. in the U.K. not less than 1 yr. after graduation. The conditions include 6 mos. practical instruction in an approved lab. (Pub. Health and Bact.); 6 mos. pract. study, under supervision, of Pub. Health administration duties; 3 mos. attendance, subsequent to graduation, at the practice of a hospl. for Infec. Dis.; pract. instruction in Drawing and Interpretation of Plans. A course in one of the subjects of the examn. must have been taken in this Univ. The whole of the courses must have covered at least 9 mos.

Hospitals available for clinics—Royal Infirmary (230 beds), Children's Hospl. (85), City (Fever) Hospl. (100), Lunatic Asylum (700 patients), Dispensary, Maternity Hospl., Vaccine Institn., and Ophth. Institn.

Training of Teachers. The courses in Educn. are arranged with reference to the regns. of the Aberd. Provincial Committee for the Training of Teachers.

Higher Degrees in Arts and Science. The D.Sc. degree is open to (1) a B.Sc. of this Univ. of 5 yrs. standing; (2) a M.A. of this Univ. with 1st or 2nd Class Hons. in Maths. and Nat. Phil. of 5 yrs. standing; (3) a research student who has, in pursuance of the regns. mentioned under the next heading, spent 2 winter sessions

* Adel., Bom., Calc., Dal., Mad., McG., Melb., N.Z., Qu. (Can.), Tor., and several Univs. of the U.S.A. and Med. Schools in the U.K.

or their equivalent in satisfactory special study or research in this Univ. and has held for 5 yrs. a degree of B.Sc. or M.B. of a recognized Univ. or an equivalent degree of such a Univ. A satisfactory published memoir or work or a thesis recording an original research must be presented by a candidate for the D.Sc. The regns. for admission to the D.Phil. and D.Litt. degrees are on similar lines. The thesis or published memoir or work must be an original contribution to learning.

Research Students. Regns. provide for the admission (without necessarily passing any entrance examn.) of persons of good general educn. (whether grads. of other Univs. or not) for the purpose of prosecuting special study or research under supervision. The title of Research Fellow may be conferred with or without a stipend on specially distinguished students.

Scholarships, &c., for Graduates. There are 23, of the aggregate annual value of about £1600, and an indeterminate number of Reid Scholarships of varying values. They are not open to grads. of other Univs. As a Scot. Univ., Aberd. participates in the benefits of the Carnegie, Ferguson, McCunn, and Shaw Scholarships. This Univ. nominates every alternate year to an 1851 Exhibition Science Scholarship. *See also* p. 165 *and* Appendix IV.

Women are admitted to instruction and graduation on the same conditions as men. They are eligible for most of the competition Bursaries in Arts.

Residential Facilities. Good lodgings and board are easily obtainable. A register of lodgings is kept by the Students' Representative Council.

An Appointments Committee exists, with Sub-Committees for Educnl., Govt., and Foreign and Colonial apptmts. and apptmts., for women.

The Library, which dates from 1500, contains 200,000 vols. and 170 Incunabula, including 13 believed to be unique. The Library revenues include an annual Parliamentary grant of £640 for the purchase of books in lieu of the Stationers' Hall privilege enjoyed from 1709 to 1836; from certain Library funds about £200; from the General Fund about £1200; from the Carnegie Trust, £1000; and from a bequest for the benefit of the Science Depts., the interest on £10,000. Departmental Libraries—Classical, Celtic (including hist., topog., and antiq. of Scot. Highlands, as well as Celtic Lit. and Philol.), Local, Class., Archæol., Pharm., Law, and Theol. Catalogues have been printed for the Gen. and for the Pharm., Law, and Theol. Libraries.

Museums. Anthrop. (including Local, Class., and Eastern antiq., coins, &c., and specimens illustrating habits and customs of natives of Africa, America, Melanesia, Australia, and Malay Archipelago).

Egyptian (illustrated catalogue, price 1s.). Departmental Museums—Anat. and Anthrop., Bot., Forensic Med. and Hygiene, Geol., Mat. Med., Midw., Path., Surg. (2500 specimens and 600 instruments), Zool. There are fully equipped Labs. for Anat., Anthropometry, Bact., Bot., Chem., Pharm., Phys., Physiol., Pub. Health, and Zool.

PUBLICATIONS. *Calendar*, issued in Sept., price 3s. 10d. post free (contains, in addition to usual information, examn. papers and statistical and financial statements); *Aberd. Univ. Review*, pubd. in Feb., May, and Nov., 1s. each number; *Alma Mater*, the Students' Mag., weekly during winter session.

THE YEAR 1912–13

NUMBER OF STUDENTS (matriculated). Winter, 1004 (including 309 women). Additional in summer, 39 (including 9 women).

HONORARY DEGREES CONFERRED. *D.D.*—Alexander Alexander, M.A., Minister of Waterloo Presb. Church, L'pool; Herbert T. Andrews, B.A. (Ox.), Prof. of Hackney Coll., Lond.; Henry W. Wright, Ferryhill Parish Church, Aberd. *LL.D.*—John MacEwen, Headmaster, Burgh School, Kirkwall; Reynold Alleyne Nicholson, M.A., Litt.D. Camb.; William Stephenson, M.D., F.R.C.S. Edin., Emeritus Prof., Aberd.; David White Finlay, B.A., M.D. Glas., LL.D. Yale, F.R.C.P. Lond., Emeritus Prof., Aberd.; William Botting Hemsley, F.R.S.; Sir Alexander Hosie, M.A. Aberd., H.B.M. Consul-General, Tientsin; Ronald Campbell Macfie, M.A., M.B. Aberd.; Sir James Meston, K.C.S.I., Lieut.-Gov. of Agra and Oudh. (*in absentia*).

OTHER DEGREES. M.A., 149 (including 75 women); D.Sc., 1; B.Sc., 16 (4 women); B.Sc.Agr., 12; B.D., 5; LL.B., 1; M.D., 12; Ch.M., 1; M.B. and Ch.B., 40 (1 woman). 12 candidates qualified for the Diploma in Agric. and 11 for the D.P.H.

ADDITIONS TO BUILDINGS. The new block at King's Coll. was completed at a cost of over £11,000. It contains class-room accommodation for the Depts. of Engl., Hist., French, and Ger., with a dwelling-house for the Sacrist.

ACADIA UNIVERSITY, WOLFVILLE, NOVA SCOTIA

[Incorporated by Act of the Legislature of Nova Scotia, 1840. Constitution revised and defined by Act of 1891.]

PRESIDENT	GEORGE B. CUTTEN, Ph.D., D.D.
CHAIRMAN OF THE BOARD OF GOVERNORS	J. W. MANNING, D.D.
REGISTRAR	A. B. BALCOM, B.Sc., M.A.
BURSAR	A. COHOON, B.A., D.D.
LIBRARIAN	Miss J. S. HALEY, M.A., S.B.

PROFESSORS, LECTURERS, ETC.

BIOLOGY [Prof
PERRY, H. G., M.A. C. F. Myers

CHEMISTRY
AMBLER, J. A., PH.D. I. Curry Prof.

DRAWING and Surveying
SUTHERLAND, A., B.SC. Asst. Prof.

ECONOMIC SCIENCE
BALCOM, A. B., B.SC., M.A. Prof.

EDUCATION
NOWLAN, I. S., B.A., B.TH. Instr.

ENGINEERING
CLARKSON, R. P., B.SC. I.Curry Prof.

GEOLOGY
HAYCOCK, E., M.A. Prof.

HISTORY [Prof.
TUFTS, J. F., M.A., D.C.L. M. Curry

LANGUAGES and Literature
English Lang. and Lit.
HANNAY, N. C., M.A., B.A. Prof.
German
SIEVERS, J. F., M.A. Prof.
Greek
VACANT Instr.

Latin [Prof.
THOMPSON, W. H., JR., M.A., PH.D.
New Test. Lang. and Lit.
DEWOLFE, H. T., B.A., D.D. Prof.
Old Test. Lang. and Lit.
CHUTE, A. C., B.A., D.D.
G. P. Payzant Prof.
Romance Languages
CAVVICHIA, G., B.A. Prof.

LAW [Lectr.
ROSCOE, W. E., K.C., M.A., D.C.L.

LIBRARY SCIENCE
HALEY, MISS J. S., M.A., S.B. Instr.

MATHEMATICS [Prof.
COIT, W. A., M.A., PH.D. White

PHYSICAL TRAINING
ARCHIBALD, L. W. Director.

PHYSICS
HALEY, F. R., M.A. Alumni Prof.

PSYCHOLOGY and Philos.
THE PRESIDENT Prof.

THEOLOGY and Church Hist.
SPIDLE, S., B.D., PH.D.
G. P. Payzant Prof.

CHANGES IN STAFF

Black, H. G., M.A., Prof. of Engl., resigned.
Cavvichia, G., formerly Instr. Univ. of Mo., and Dartmouth, appointed *vice* Rice.
Haley, J. S., apptd. Instr. in Library Science.
Hannay, N. C., apptd. *vice* Black.
Herrmann, A. F., Ph.D., Prof. of German, resigned.
Jones, R. V., M.A., Ph.D., Prof. of Greek and Latin, retired, and was made Prof. Emeritus.
Nowlan, I. S., apptd. Instr. in Education.
Rice, J. P., Ph.D., Prof., Romance Languages, resigned.
Sievers, J. F., formerly Instr. at Brown, and Harv., apptd. *vice* Herrmann.

GENERAL INFORMATION

The Board of Governors is appointed by the Baptist Convention of the Maritime Provinces. While seeking to surround the student with positive Christian influences, the Univ. imposes no religious tests. It aims at preparing students for the specialized courses of the graduate Univs. and Professional Schools or equipping them thoroughly for active non-professional life.

Departments. Arts and Sciences; Theology; Applied Science; Music. The Acadia Collegiate Academy and Acadia Ladies' Seminary are controlled by the Governors and Senate.

Terms, 1913–14. First term begins Oct. 1, 1913, ends Jan. 31; second begins Feb. 2, ends May 27.

• Degrees. B.A., M.A.; B.Sc., B.Th. Honorary Degrees: M.A., D.Litt.; D.D., D.C.L., D.L. A Certificate in Engineering is granted.

Examinations are held at the end of each term. The term standing is dependent on the average of the marks for daily exercises and the examn. marks.

Arts and Sciences. A 4 yrs. course leads to the B.A. or B.Sc. There are Matricn. examns. for admission to the courses. Holders of Nova Scotia or New Brunswick teachers' licences and of Prince of Wales Coll. Diplomas are admitted to advanced standing in the courses. For the B.A., Latin, Engl., Maths., Biblical Lit., Psych. and Educn., Hist., Econ., Philos., are compulsory, as are also (1) Greek *or* German *or* Romance Langs.; (2) Physics *or* Chem. *or* Geol. *or* Biol. For the B.Sc., Engl., German, Romance Langs., Maths., Biblical Lit., Psych. and Educn., Philos., and either Physics or Chem. are compulsory. Honours courses are provided in the 3rd and 4th yrs. and are open to students who attained a certain standard in the first 2 yrs. Students

taking LAW courses in the 3rd and 4th yrs. whose work satisfies the authorities of the Dalhousie Law School, Halifax, are admitted after graduation to the 2nd yr. of that school. Students satisfactorily completing certain other courses for the B.A. are admitted after graduation to the 2nd yr. of the MEDICAL Dept. of McGill. (*v. also* notes *under* "Applied Science").

The M.A. course covers 1 yr. and is open to grads. (i) at any time, (ii) 1 yr., or (iii) 3 yrs., after graduation, according to the standard attained in the last 3 yrs. of the B.A. or B.Sc. course. A thesis and critique are required in addition to passing examns. The M.A. is also given for research work carried on in this or some other Univ.

THEOLOGY. No charge is made for tuition. A 3 yrs. course leads to the B.Th. The course is open to ordained ministers or licentiates of some Christian Church who have completed the first 2 yrs. of the Arts course (with Greek in both years) or equivalent studies. Grads. in Arts who took theological subjects in their 3rd and 4th yrs. may complete the course for the B.Th. by 2 yrs. of additional study. Original investigations are encouraged. A 2 yrs. "English" course is open to students not entering for the Degree. Students preparing for the Baptist Ministry (whether in this or in the Arts Dept.) may obtain employment during the summer, for which they receive payment from the Payzant Aid Fund.

APPLIED SCIENCE. A 2 yrs. course, which covers the same ground as the unified course of McGill and the N.S. Tech. Coll., gives admission to the 3rd yr. in these institns. There is a Matricn. examn. for admission to the course. A student preparing for the B.Sc. may in his 3rd and 4th yrs. take Engin. subjects and thus qualify for admission to the 3rd yr. of the above-mentioned technical schools upon graduation. *See also* Appendix VI (ii).

WOMEN are admitted to the classes and degrees, except in Theol., on equal terms with men.

RESIDENTIAL FACILITIES. The residence known as Chipman Hall provides accommodation for 60 students. A women's residence has accommodation for 20. Other students must reside at places approved by the Faculty, and women must not reside where men students are boarding.

The LIBRARY contains about 20,000 vols.

MUSEUMS. Geol., Biol., Ethnol. and Hist. collections.

LABORATORIES. The Carnegie Science Hall is provided with a gas plant and Phys., Chem., Geol., and Biol. labs. Rhodes Hall contains wood, iron, foundry, and drawing depts.

OBSERVATORY. There is a small Meteor. and Astron. Obs. with 2 6-inch telescopes.

PUBLICATIONS. The *Bulletin*, pubd. occasionally, price 25 c. p.a. The Univ. Calendar number of the *Bulletin* is issued in June or July and is obtainable from the Registrar.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. An offer of $125,000, subject to the condition that a like amount should be obtained from other sources (*v. also* "Additions to Library").

ROYAL VISIT. The Duke and Duchess of Connaught visited the Coll. in 1912.

NEW POSTS. The combined Chairs of Hist. and Pol. Econ. and of Chem. and Geol. have been replaced by four independent Chairs; instructors in Library Science and in Educn. have been appointed, and an additional Lab. Asst. in Biol.

NUMBER OF STUDENTS preparing for the B.A., 157 (including 43 women); B.Sc., 24; B.Th., 17; other Theol. students, 3; Applied Sc., 35; general, 17; resident grads., 3; total, excluding those registered in 2 courses, 244.

HONORARY DEGREES. *D.Sc.*—E. E. Prince; *D.D.*—O. E. Cox, E. W. Kelly.

OTHER DEGREES. M.A., 7 (including 3 women); B.A., 39 (8 women); B.Sc., 5.

ENGINEERING CERTIFICATES, 7.

NEW BUILDINGS. Rhodes Hall, a new manual training building for Engin. students, was opened in Feb. 1913. A new Library building was begun in Aug. 1913.

ADDITIONS TO LIBRARY. 1803 vols. from various donors; the Scientific Library of the late Dr. Hay, of St. John, N.B.; the Theol. and General Library of Dr. McLeod, of St. John, N.B.

UNIVERSITY OF ADELAIDE

[Established by Act of the South Australian Legislature in 1874.]

VISITOR	His Excellency THE GOVERNOR.
CHANCELLOR	Rt. Hon. Sir SAMUEL J. WAY, Bart., P.C., D.C.L., LL.D., Lieut.-Governor and Chief Justice.
VICE-CHANCELLOR	WILLIAM BARLOW, B.A., LL.D.
REGISTRAR	C. R. HODGE.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY and Business Practice
COLVIN, B. D., M.A. CAMB. Lectr.

ANATOMY
WATSON, A., M.D. PARIS AND GÖTT., F.R.C.S. Elder Prof.

BANKING and Exchange
NEILL, W. Lectr.

BOTANY
OSBORN, T. G. B., M.SC. MANC. Prof.

CHEMISTRY
RENNIE, E. H., M.A. SYD., D.SC. LOND. AND MELB. Angas Prof.
COOKE, W. T., D.SC. Lectr.

CLASSICS and Comp. Philol. and Lit.
NAYLOR, H. D., M.A. CAMB. Hughes [Prof.
HOLLIDGE, D. H., M.A. Asst. Lectr.

COMMERCE (v. also *Accountancy* and *Banking*)
THE PROF. OF ECONOMICS Prof.
Comml. Geog. and Technology
CLUCAS, R. J. M., B.A. Lectr.
Comml. Law, v. *Law*.

ECONOMICS, v. *Philosophy*

EDUCATION
SCHULZ, A. J., PH.D. ZÜR., M.A. ADEL. Lectr.

ENGINEERING, v. *Mining* and *Phys.*

GEOLOGY and Mineralogy
Geol. and Palæontology
HOWCHIN, W., F.G.S. Lectr.
Mineralogy and Petrology
MAWSON, D., B.E., B.SC. SYD., D.SC. ADEL. Lectr.

HISTORY, Modern, and English Lang. and Lit.
HENDERSON, G. C., M.A. OX. Prof.

LAW
BROWN, W. J., LL.D. CAMB., D.LITT. DUB. Prof.
Contracts and Comml. Law
JOHNSTONE, P. E., B.A., LL.B. Lectr.
Evidence and Procedure
D'ARENBERG, F. A., M.A. DUB. Lectr.
Property
BENHAM, E. W., LL.B. Lectr.
Wrongs
POOLE, T. S., M.A. MELB. Lectr.

MATHEMATICS and Mechanics
CHAPMAN, R. W., M.A., B.C.E. MELB. Elder Prof.

MEDICINE and Surgery

Aural Surgery [Lectr.
FISCHER, G. A., B.A., M.B., B.S.

Bacteriology
BORTHWICK, T., M.D. EDIN. Lectr.

Diseases of Children, Med.
SWIFT, H., M.D. Clin. Lectr.

Diseases of Children, Surg.
NEWLAND, H. S., M.B., M.S. Clin. Lectr.
(v. also *Obstetrics*)

Forensic Medicine
REISSMANN, C. H., M.A., M.D., CH.B. CAMB., M.R.C.P. Lectr.

Gynæcology
HAMILTON, J. A. G., B.A., M.B. DUB. E. W. Way Lectr.

Lunacy
DOWNEY, M. H., M.B., B.S. Lectr.

Materia Medica and Therap.
HAYWARD, W. T., M.R.C.S. Lectr.

Medicine and Therap. [Lectr.
VERCO, J. C., M.D. LOND., F.R.C.S.

Medicine, Clinical
HAYWARD, W. T., M.R.C.S. Lectr.

Obstetrics and Dis. of Children
LENDON, A. A., M.D. LOND. Lectr.

Ophthalmic Surgery
MORGAN, A. M., M.B., B.S. Charles Gosse Lectr.

•*Path. and Histology, Practical*
DE CRESPIGNY, C. T. C., M.D., B.S. MELB. Lectr.

Pathology
CAVENAGH-MAINWARING, W. R., M.B., B.S., F.R.C.S. Lectr.

Surgery
POULTON, B., M.D., CH.B. MELB., M.R.C.S. Lectr.

Surgery, Clinical [Lectr.
CUDMORE, A. M., M.B., B.S., F.R.C.S.
(v. also *Aural*)

Tutor in Medicine
THE LECTR. IN *Forensic Med.*

Tutor in Obstetrics
WILSON, T. G., M.D., CH.M. SYD., F.R.C.S. EDIN.

Tutor in Surgery
THE LECTR. IN *Pathology*

Clinical Teachers
THE STAFF OF THE ADELAIDE AND OF THE CHILDREN'S HOSPLS.

MINING Engineering
GARTRELL, H. W., B.A., B.SC. ADEL., M.A. COL. Lectr.

MUSIC [Elder Prof.
ENNIS, J. M., MUS.DOC. LOND.

PHILOSOPHY and Economics
MITCHELL, W., M.A., D.SC. EDIN. Hughes Prof.
HAM, W. Asst. Lectr. in *Econ.*
BRONNER, R., B.A. Asst. Lectr. in *Ethics.*

PHYSICS
GRANT, K., M.SC. MELB. Prof.

Electrical Engin.
CLARK, E. V., B.SC. Lectr.

PHYSIOLOGY
STIRLING, E. C., C.M.G., M.A., M.D. CAMB. AND MELB., D.SC. CAMB., F.R.S., F.R.C.S. Prof.
FULLER, W. (Lectr. in *Biol.*) Demr.

CHANGES IN STAFF

Osborn, T. G. B., appointed to the new Chair of Botany.

GENERAL INFORMATION

FACULTIES. Arts, Science, Law, Medicine, Music, Applied Science.*

* Not a "Faculty" within the meaning of the Statutes, but formed by the Councils of the Univ. and S.A. School of Mines and Industries to advise the Joint Board.

There are Boards of Commercial and of Musical Studies and of Education, and an Extension Lectures Committee. There is also a Joint Board appointed by the Councils of the Univ. and the S. Australian School of Mines and Industries to consider and report to the Councils on all matters arising out of the fulfilment of an agreement under which the two institns. combine their teaching powers and laboratories for instruction in Mining Engin., Metall., Mech. Engin., and Elec. Engin.

Matriculation. The minimum age is 16. Students entering for Degree courses have to qualify for admission to the courses by passing prescribed examns.

Terms, 1914. First term begins March 3 (1st Tues. in March). Third term ends Dec. 8 (2nd Tues. in Dec.). There are 2 vacations of a fortnight each. In the Elder Conservatorium there are 4 terms, and the academic year begins with the last week of Feb.

Degrees. B.A., M.A.; B.Sc., D.Sc.; LL.B., LL.D.; M.B., B.S., M.D., M.S.; Mus.Bac., Mus.Doc.; B.E., M.E. The Univ. grants a Diploma of Assoc. in Music; Diplomas in Applied Science (Mining, Metall., Elec. Engin., and Mech. Engin.), Commerce, and Education; and a Final Certif. in Law for admission as a practitioner in the Supreme Court. In 1881 Royal Letters Patent were issued declaring that the degrees granted by this Univ. should be recognized as academic distinctions, and be entitled to rank, precedence, and consideration throughout the British Enpire as if granted by any Univ. in the U.K. *External examiners* are appointed in all cases for the degree of Doctor or Master; in all cases for Honours Degrees; in all subjects in the Law course; in all final subjects in the Arts, Science, and Med. courses; in Tech. subjects; and in nearly all the subjects of the 5th yr. of the M.B. degree. For the Mus.Bac. external examiners are appointed for the 3rd year, for the original exercise, and for the final examn. of an executant.

Arts. The course for the B.A. degree covers at least 3 yrs. A B.A. of 2 yrs. standing may obtain either the Ordinary or Honours degree of M.A. The former is obtained by attendance at lectures and passing examns. in 3 subjects other than those taken for the B.A. degree. For the Honours M.A. a candidate must have graduated with Honours as B.A. in the dept. in which he desires to obtain the higher degree. Attendance at lectures is not necessary, but in Class., Hist., or Philos. the candidate is required to do original work in addition to passing the examn.

Science. Candidates for the ordinary B.Sc. degree desirous of studying *Agric.* or *Forestry* may specialize in these subjects. It is also open to candidates for this degree to take one of the 4 yrs. courses provided (in conjunction with the School of Mines) for the Diploma in *Applied Science* and B.E. degree. The special course for Agric. students includes portions of the course at the affiliated Roseworthy

Agric. Coll. New regns. for Forestry Diploma courses have been prepared and will shortly be published. A B.Sc. may, 3 yrs. after graduation, proceed to the D.Sc. degree.

LAW. The course for the LL.B. is usually concluded in 4 yrs., and is open to students who have passed the Senior Public examn. or graduated in arts. The curriculum for the Final certificate is less extensive than that for the LL.B., but candidates must serve under articles to a practitioner for 5 yrs. A LL.B. may proceed to the LL.D. degree after 3 yrs. A thesis, on which the candidate may be examined, is required.

MEDICINE. Before entering upon the 5 yrs. medical course candidates must have passed the Senior Public examn. and a prelim. examn. in Elem. Biol., Chem., and Phys. During the 3rd, 4th, and 5th yrs. they must attend the Med. and Surg. practice of the Adel. Hospl., Children's Hospl., and Hospls. for the Insane, act as Surg. and Clin. Clerks, attend at least 20 cases of midw. and be instructed in vaccin., anæsth., and dent. No candidate is eligible for the M.D. or M.S. degree until the 3rd yr. after admission as M.B. and B.S. except under special conditions. Either degree may be conferred for an original thesis embodying the result of independent research.

MUSIC. The course for the Mus.B. covers 3 yrs. The Elder Conservatorium of *Music*, which was established in 1898, is under the control of the Council of the Univ. Students may obtain the diploma of A.M.U.A. after attending a 3 yrs. course. The Conservatorium building contains a Hall in which the principal meetings of the Univ. are held.

The COMMERCE diploma lectures are given in the evening. The course takes at least 4 yrs.

The TRAINING Coll. for State School Teachers has practically been transferred to the Univ., which now provides for students in training, without fee, lectures in all but the professional, or practical, subjects of their work.

RECOGNITION of Courses and examns. in this Univ. is accorded by the Univs. of Ox., Camb., and Dub. The Senior Public examn. of the Univ. (*see below*) is recognized by the Inst.C.E. London. The Institute of Chemistry of the U.K. recognizes the Univ. as an institn. for the training of candidates for the examns. of the Inst.

A grad. of a recognized Univ. (including all Univs. of the British Empire to which Royal Charters or Letters Patent have been granted) may be admitted *ad eundem gradum*. Undergrads. of a recognized Univ. or Coll. may be admitted *ad eundem statum*.

SCHOLARSHIPS, &C., FOR GRADUATES. Angas Engin., £200 p.a. for 2 yrs., tenable ordinarily in the U.K., offered biennially ; several smaller scholarships. Two first-class return passages are granted

annually by the Orient Line to grads. of the Univ. proceeding to Europe for study.

WOMEN have been admitted to degrees since 1880.

RESIDENCE. The Act of Incorporation authorizes the Univ. to prescribe conditions of residence, but the Univ. has never imposed any residential qualification and there is no residential Coll.

The LIBRARY contains over 25,000 vols.

LABORATORIES. Phys., Chem., Bot., and Biol.

PUBLIC EXAMINATIONS are conducted by the Univ. irrespective of those for its own degrees, graded thus: Primary, Junior, Senior, and Higher; in Commerce, Junior and Higher; in Music (in conjunction with the other Australian Univs.), several grades in both Practice and Theory. Facilities for examns. have been extended to the country, and local centres with permanent Committees have been formed for them at some 40 towns in South Australia and also at 4 centres in W. Australia.

UNIV. EXTENSION lectures are given at various country centres as well as at the Univ. *Evening Classes* are held in various Arts and Science subjects as well as in Commercial subjects. The Educn. Dept. has established studentships for the encouragement of evening students.

PUBLICATIONS. The *Calendar*, price 2s. 6d., contains, in addition to the usual information, the annual report of the Council, with financial statements. Regns., examn. papers, &c., of the Public examns., Regns., &c., of the B.A. and B.Sc. Degrees and Diploma courses in Applied Science and Degree examn. papers are published in separate vols.

AFFILIATED COLLEGES. The Govt. Agric. Coll, Roseworthy, and Technical School, Perth. The teaching in the Agric. Coll. is accepted as part of the Univ. course for the degree of B.Sc. with Agric. The teaching in Chem., Phys., &c., up to the standard of the ordinary degree of B.Sc. in the Tech. School, Perth, is accepted, and students in the western State attend lectures there instead of coming to Adelaide.

THE YEAR 1912–13

BENEFACTIONS. £500 for a Botany Scholarship and Medal; £200 for an annual prize for Engl. verse; a conditional promise of £10,000 for a residential Coll.

NEW DEPARTMENTS, &c. Evening Classes in Elem. Greek for non-graduating students have been organized. A Chair of Botany has been instituted.

At the PUBLIC EXAMINATIONS in 1912 there were over 3000 candidates. In addition to these, 500 candidates entered for the examns. in Music held jointly by the Univs. of Adel., Melb., Queensland, and Tasm. Three short courses of *Extension* lectures were given at the Univ. The Profs. devoted the May and Aug. vacations to lecture tours.

NUMBER OF STUDENTS in 1912. Undergrads., 388; occasional students, 310; attending the Conservatorium, 299. Bachelors preparing for the M.A. degree, 18. Engaged in Research, 1 (1851) Exhibn. scholar, 2 Rhodes scholars, 2 History scholars.

DEGREES CONFERRED. B.A., 17 (including 6 women); B.Sc., 7 LL.B., 4; M.B. and B.S., 7 (1 woman); Mus.B., 1; M.A., 5; D.Sc., 1. *Ad eundem* degrees, 6. Diplomas in Applied Science, 5; in Comm., 2; Assoc. in Music, 5 (including 4 women).

NEW BUILDINGS for the Faculties of Arts and Law, the Library, and the Botany Dept. were completed in 1912. These, with fittings, &c., cost over £12,000. Equipment for Bot., Phys., Chem., and Engin. Depts. cost £951.

NOTABLE ADDITIONS TO LIBRARY. Parly. Prodgs. of S.A., 1847 to 1893. A large number of valuable Medical works.

CONFERENCES. An inter-Univ. Conference was held in Melb. in Aug. 1913.

UNIVERSITY OF ALBERTA, EDMONTON

[Opened in Sept. 1908 under Acts of the Legislature of the Province of Alberta of 1906 and 1907. Reorganized under an Act of 1910.]

VISITOR	Hon. GEORGE HEDLEY VICARS BULYEA, B.A., LL.D., Lieut.-Governor.
CHANCELLOR	Hon. CHARLES ALLAN STUART, B.A., LL.B.
PRESIDENT	HENRY MARSHALL TORY, M.A., D.Sc., LL.D. McG., F.R.S.C.
REGISTRAR	C. E. RACE, B.A. Tor., C.A.
SECRETARY, EXTENSION DEPT.	A. E. OTTEWELL, B.A.
LIBRARIAN	F. G. BOWERS, M.A. Ox.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING, v. *Maths.*

ARCHITECTURE

BURGESS, C. S., A.R.I.B.A. Prof.

BIOLOGY

LEWIS, F. J., D.SC. LIV., F.L.S. Prof.
TOWENTON, H. J., B.SC. Instr.

CHEMISTRY

LEHMANN, A. L. F., B.S.A. TOR., PH.D. LEIP. Prof.
COWPER, A. D., B.SC. LOND. Lectr.

CLASSICS (v. also *Langs.*)

ALEXANDER, W. H., M.A. TOR., PH.D. CALIF. Prof.

EDUCATION [Spl. Lectr.

DYDE, S. W., M.A., D.D., ETC. (Principal of Robertson Coll.)
VACANT Lectr.

ENGINEERING, Civil and Municipal

EDWARDS, W. M., M.SC. MC G. Prof.
MORRISON, I. F., B.SC. MASS. INST. TECH. Lectr. in *Civil E.*
FIFE, W. M., B.SC. Instr. in *Civil E.*

Mechanical Engineering

ROBB, C. A., B.SC. MC G., M.SC. MASS. INST. TECH. Lectr.

GEOMETRY, Descr., and Free-hand Drawing

ADAM, J., B.A. Lectr.

GEOLOGY

ALLAN, J. A., M.SC. MC G., PH.D. MASS. INST. TECH. Prof.

HISTORY

VACANT Prof.
FIFE, G. S., B.A. OX. Lectr.
BURT, A. L., M.A. TOR., B.A. OX. Lectr.

LANGUAGES and Literature

English

BROADUS, E. K., M.A. CHIC., PH.D. HARV. Prof. of *E. Lang. & Lit.*
GORDON, R. K., M.A. TOR. Lectr.

French (v. also *Mod. Langs.*)
SONET, E., B.-ÈS-L. LYONS Lectr.
German
FAIRLEY, B., M.A. LEEDS, PH.D. JENA Asst. Prof.
VON ZABURSING, AUGUST Lectr.
Greek (v. also *Classics*) [Lectr.
WOODHEAD, W. D., B.A. OX., M.A.
Latin
MISENER, MISS G., M.A. QUEEN'S, PH.D. CHIC. Lectr.
Modern Languages
KERR, W. A. R., M.A. TOR., PH.D. HARV. Prof.

LAW
Staff not appointed

MATHEMATICS
SHELDON, E. W., M.A. MCG., PH.D. YALE Prof.
KILLAM, S. D., M.A. MT. ALL., PH.D. GÖTT. Lectr.
M. and Municipal Accounting
RACE, C. E., B.A. TOR., C.A. Lectr.

MEDICINE
Staff not appointed

MINING
Staff not appointed

PHILOSOPHY
MACEACHRAN, J. M., M.A. QUEEN'S, PH.D. LEIP. Prof.

PHYSICS [Prof.
BOYLE, R. W., M.A., PH.D. MCG.

CHANGES IN STAFF

Allan, J. A., promoted from Lectr. to Prof. of Geology.
Burgess, C. S., apptd. Prof. of Architecture.
Burt, A. L., apptd. Lectr. in History.
Cowper, A. D., promoted from Instr. to Lectr. in Chemistry.
Fife, W. M., apptd. Instr. in Civil Engineering.
Gordon, R. K., apptd. Lectr. in English.
Killam, S. D., apptd. Lectr. in Mathematics.
Lewis, F. J., apptd. Prof. of Biology.
Misener, Miss G., apptd. Lectr. in Latin and Adviser to Women Students.
Towenton, H. J., apptd. Instr. in Biology.
von Zabursing, of Munich, apptd. Lectr. in German.
Woodhead, W. D., promoted from Instr. to Lectr. in Greek.

GENERAL INFORMATION

This is a State University. The Chancellor and President are *ex-officio* members of the Board of Governors; the other 9 are appointed by the Lieut.-Governor in Council.

MATRICULATION examns. are held at all the High School centres of the Province and may be held elsewhere.

TERMS, 1913–14. First begins Sept. 26, ends Dec. 22; second begins Jan. 5, ends April 15.

FACULTIES. Arts and Sciences; Law.

DEGREES. B.A., M.A.; B.Sc., M.Sc.; B.Sc. in Applied Scieuce; LL.B.; LL.D. (Honorary).

COURSES. Courses leading to the degrees in Arts and Science extend over 4 (in the case of Applied Science 4 or 5) annual sessions of 2 terms each. The course for the LL.B. covers 3 yrs., but candidates for admission must have an academic standing at least equal to that required for entrance into the 2nd yr. in this Univ. Regular and punctual attendance at the lectures is required as a condition of admission to the examns. Except under special circumstances no student under 16 yrs. of age is admitted to the 1st yr.'s courses or under 17 to the 2nd yr.'s.

WOMEN are admitted to the courses on equal terms with men. There is an Adviser to Women Students—Miss Misener, Lectr. in Latin.

RESIDENTIAL FACILITIES (*see* "Affiliated Colleges" and "New Buildings"). There is a special residence for women students.

EXTENSION work is done on 3 main lines: (1) a weekly bulletin is supplied free of charge to newspapers of the Province, containing items of interest touching practical advances made in connexion with the everyday life of the people; (2) information is supplied for the use of debating societies, which are encouraged to discuss with reliable data questions of public interest; (3) an information bureau is maintained to which all inhabitants of the Province may have recourse.

PUBLICATIONS. The *Calendar*, pubd. in July.

AFFILIATED COLLEGES

Provision has been made for the accommodation upon the Univ. grounds (258 acres) of affiliated Colls. as part of the Univ. system. Alberta Coll. has already erected, at a cost of nearly $200,000 on the portion set aside for it, a building affording quarters for 112 students. A similar allotment of land has been made to the Robertson Coll. These 2 Colls. co-operate, Profs. of both giving instruction in united classes.

ALBERTA THEOLOGICAL COLLEGE (METHODIST), EDMONTON. The Governors are appointed every 4 yrs. by the Genl. Conference of the Methodist Church. Chairman of Board of Govrs., Hon. H. C. Taylor, M.A., LL.B. Secy., P. E. Butchart. The courses provided include: For candidates for the Meth. Ministry who are B.A., a 2 yrs. Coll. course and additional studies while on probationary circuit; for students of any denomination who are B.A., a full 3 years course leading to the B.D.

Principal—J. H. Riddell, B.A., B.D., D.D. Manc., Prof. of *New Test. Exegesis and Lit.* Other Professors: *Systematic and Historical Theol.*—C. E. Bland, B.A. McGill, B.D. Wes. Coll.; *Pastoral Theol.*—C. W. Bishop, B.A. Tor.; *Old Test. Lang. and Lit.*—D. E. Thomas, B.A., B.D. Yale, Ph.D. Chic. Lecturers: *English and Modern Langs.*—Clyo Jackson, M.A. Tor.; *Maths. and Physics*—R. S. Laycock, B.A. Tor.

Robertson Theological College (Presbyterian), Edmonton. Principal—S. W. Dyde, M.A., D.Sc., LL.D. Queen's, D.D. (Special Lectr. in the Univ. on the Philos. of Educn.), Prof. of *Theol.* Prof. of *Engl. Bible and Practical Training*, J. M. Millar, M.A., B.D.; Lectr. in *Apologetics and Hebrew*, R. A. King, M.A., D.D.; Lectr. in *Church History and N.T. Exegesis*, L. A. Wood, Ph.D.

THE YEAR 1912–13

Benefactions Received. Endowment funds for gold medals to be given annually for Applied Science and for the best record made by a grad. and for a fellowship of $200 p.a. in English. The revenue of the Univ. has risen during the year about 50 per cent., the Legislature having increased its grant.

New Departments. A faculty of *Law* with courses leading to Bachelorship; depts. of *Biology*, *Mining*, and *Architecture*, and lectureships in *English*, *German*, *Latin*, and *Maths*. A faculty of *Medicine* is being established; if at the end of 3 yrs. clinical facilities and laboratory arrangements are not sufficiently developed, entrance will be secured for students *ad eundem gradum* at the large Univs. in Eastern Canada; a hospital is in course of erection on the Univ. grounds. A Univ. *Press* has been established.

Number of Students. Undergrads. in Arts, 142 (including 28 women); special students, 62 (13 women); undergrads. in Applied Science, 66, Law, 50 (1 woman); grads., 13 (1 woman); total, 333. Students in Alberta Coll., 105; in Robertson Coll., 30.

Degrees Conferred. M.A. 2; B.A., 8 (including 3 women); B.Sc. in Arts, 1; B.Sc. in Applied Science, 5.

Alterations of Courses, &c. In future there is to be one final examn. each year instead of two. Tests will continue to be conducted at intervals during the year.

New Buildings. Assiniboia Hall was opened partly for offices and lecture-rooms and partly as a dormitory for 55 students. A new dining-room and gymnasium are being provided, and next year a music-room will be opened to students. Comfortable rooms have been provided and equipped for the use of women students. Athabasca Hall has residential accommodation for 90 students.

Other New Developments. An Alumni Association has been organized.

Relations with Other Bodies. The Provincial Architects' Assocn. and the Alberta Law Society became affiliated with the Univ., which will henceforth conduct examns. for these bodies, as it already does for the Coll. of Physicians and Surgeons, Alberta Dental Assocn., and Alberta Land Surveyors.

UNIVERSITY OF ALLAHABAD

[Established and incorporated by Act XVIII of 1887 of the Leg. Council of India. Constitution modified by Act VIII of 1904.]

PATRON	The VICEROY AND GOVERNOR-GENERAL OF INDIA.
CHANCELLOR	The LIEUT.-GOVR. OF THE UNITED PROVINCES.
VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE*	Hon. SUNDAR LAL, B.A., LL.D., R.B., C.I.E.
REGISTRAR	M. G. V. COLE, M.A.

DEANS OF FACULTIES :

Arts—A. VENIS, M.A., D.Litt., C.I.E.
Science—E. G. HILL, D.Sc.
Law—Hon. Mr. Justice BANERJI, K.T., B.A., B.L.
Medicine—Major W. SELBY, F.R.C.S., D.S.O., I.M.S.

BOARDS OF INSPECTORS OF COLLEGES FOR 1913–15 :

Arts and Science Colleges—The DIRECTORS OF PUB. INSTRN., United Provinces and Central Provs. ; the DEANS OF ARTS AND SCIENCE ; A. W. WARD, M.A. ; J. G. JENNINGS ; G. N. CHAKRAVARTI, R.B. ; W. JESSE, M.A.
Law Colleges—Hon. Sir GEORGE E. KNOX ; Hon. SUNDAR LAL.

INSTRUCTIVE STAFF OF THE UNIVERSITY SCHOOL OF LAW :

Principal—J. C. Weir, B.A., LL.D. Dub., Bar.-at-Law.
Professor—R. K. Sorabji, M.A., Bar.-at-Law.
Lecturers—Agha Hyder, Bar.-at-Law ; Mohan Lal Nehru, LL.B.
Readers—Sarat Chandra Chowdhary, B.A., LL.B. ; Pearey Lal Banerji, M.A., LL.B.

GENERAL INFORMATION

This Univ. is, like others in India, mainly an examining and degree-granting and inspecting institn., but steps are being taken to establish 2 Univ. Chairs and Readerships for research work in Economics and Modern Indian History for graduate students. Candidates for degrees prosecute courses of study in affiliated institns., the inspection of which (at least once in 5 yrs.) is provided for by the Univ.

* The executive governing body of the Univ., *v.* Appendix V.

DEGREES, &c. Arts—B.A., M.A., D.Litt.; Science—B.Sc., M.Sc., D.Sc.; Law—LL.B., M.L., D.L.; Medicine—M.B. and B.S.; Teaching—L.T.; Commerce—Certificate.

ARTS. The B.A. examn. may be taken 2 yrs. after the Interm. examn. in Arts. Special graces under section 19 of the Univ. Act (*v.* Appendix V) are granted to women 2 yrs., and to school inspectors and teachers and College demonstrators 3 yrs., after passing the Interm. examn. Candidates for admission to this examn. must have prosecuted a regular course for 2 yrs. after Matricn. Special graces are granted, as for admission to the B.A., 2 yrs. after Matricn. provided that the practical course, if any, prescribed for any of the subjects of examn. has been completed in an affiliated Coll. The subjects for the Interm. in Arts are Engl. and 1 of 5 optional groups. For the B.A. a candidate must show a competent knowledge of 3 distinct branches of study, 1 being Engl., another being any 2 of the following branches: (*a*) Classical Langs., *i.e.* Latin, Greek, Hebrew, Arab., Pers., or Sansk.; (*b*) Maths.; (*c*) Philos.; (*d*) Pol. Econ.; (*e*) Hist. There are no Honours courses. The minimum ages for admission to the B.A. and Interm. examns. respectively are 20 and 18.

The M.A. Previous examn. may be taken 1 yr. and the Final 2 yrs. after graduating in Arts or Science. The subjects are Langs. (Engl. or Classical); Ment. and Mor. Sc.; Hist., Pol. Econ., and Jurispr.; Maths.; Pol. Econ. The examn. for the D.Litt. is *viva voce* and based on a thesis offered by the candidate at least 3 yrs. after taking the M.A.

SCIENCE. The B.Sc. examn. may be taken 2 yrs. after passing the Interm. in Arts with Phys., Chem., and either Maths. or Biol. The minimum age is 20. The subjects are Engl., Chem., and either Maths. and Phys. or Bot. and Zool. The conditions for admission to the M.Sc. are similar to those for the M.A. The D.Sc. examn. is open to any candidate who has, after taking the M.A. in Maths. or the M.Sc., prosecuted a regular course during 1 yr. immediately preceding the examn. at a Coll. affiliated up to the D.Sc. standard.

TEACHING. The L.T. examn. is open to grads. in Arts or Science who after graduating prosecute the prescribed course, including a practical course of physical training, during 1 yr. in a Coll. affiliated in Teaching.

LAW. The B.L. course covers 2 yrs. and is open to any B.A. or B.Sc. of an Indian, English, or Irish Univ. or M.A. of a Scottish Univ. This examn. is divided into 2 compartments, the Previous and the Final, like the M.A. and M.Sc. examns. The M.L. may be taken (without prosecuting any prescribed course) 2 yrs. after the B.L. The D.L. may be taken without examn. by a candidate who has practised for 5 yrs. after obtaining the M.L. An essay is required.

MEDICINE. The Prelim. Scientific examn. is open to candidates who have passed the Interm. examn. in Arts with Chem. and Phys.

and have passed in Biol. either in the Interm. in Arts or in the B.Sc. examn., or who have passed the Calc. Prelim. Scientific. The First M.B. and B.S. may be taken 2 yrs. later after completing the prescribed course in a Coll. affiliated in Med. The subsequent courses preparatory to the Final examn. cover 3 yrs.

COMMERCE. The Commercial Certif. course covers 2 yrs. subsequent to Matricn.

SCHOLARSHIPS FOR GRADUATES. Sir Chas. Elliott Scholarship, about Rs.200 p.a., tenable for 1 yr. in the Muir Central Coll. by a student of Science of that Coll.; Empress Victoria Readership, Rs. 100 p.m., tenable for 3 yrs., for students who pass the M.Sc. or higher degree in Science; a Govt. of India Scholarship of £200 p.a. (together with an allowance for cost of passage), tenable at Ox. or Camb. for 3 yrs., to be awarded in 1914 and in 1916 to a candidate who has qualified for the degree of B.A. or B.Sc. of this Univ.

RESIDENCE. Every student of an affiliated Coll. who has not completed his 20th yr. must reside with, or with a friend approved by, his parent or guardian, or in lodgings approved by the Principal, or in a hostel recognized by the Syndicate and either maintained by an affiliated Coll. or supervised by the Principal. There are 3 recognized Hostels: Allahabad Oxford and Cambridge Hostel; MacDonnell Hindu Boarding-house; and the New Government Hostel, attached to the Muir Central College, All.

PUBLICATIONS. *Calendar*, Rs.4.8.0 post free; *Prospectus of Arts and Science and Law Exams.*, R.0.4.6 (the above are to be obtained from the Pioneer Press, All.); the *U.P. Govt. Gazette*, Part IV.

THE YEAR 1912–13

BENEFACTIONS AND FRESH SOURCES OF REVENUE. A recurring grant of Rs.45,000 and non-recurring grant of Rs.3,00,000 have been given by the Govt. of India for the Development of Univ. Work. The former the Univ. propose to utilize in establishing 2 Univ. Chairs and Readerships for research work in Econ. and Modern Indian Hist., and the latter for the construction of the Univ. Library Building and a Law Hostel. For the latter building Govt. have promised a further grant of 2 lakhs.

NEW DEPARTMENTS. A Faculty of Commerce was constituted and a Comml. certif. examn. introduced. The 1st examn. for the M.B. and B.S. was held for the first time in 1913.

NUMBER OF STUDENTS. Full time, preparing for Bachelorship or Diploma, 1644, of whom 18 were women; Law, 621; Bachelor students preparing for Master's or Doctor's degree, 143 (including 1 woman); Victoria Reader engaged in research work in Physics, 1; Student

continuing study (for I.C.S.) in Cambridge, 1. The number of candidates who presented themselves in 1913 for the M.A. and M.Sc. (Previous and Final) and LL.M. examns., 210; for the LL.B., LL.B. (Previous, and L.T., 899; for the B.A. and B.Sc., 1060; for the Interm., 1762.

Degrees Conferred in 1913. M.A., 36 (including 1 woman); M.Sc., 16; B.A., 346 (4 women); B.Sc., 73; LL.B., 307; LL.M., 1; L.T., 38 (5 women).

Changes in Regulations. The minimum age for the Intermediate in Arts has been fixed at 18; for the B.A. and B.Sc. at 20, and M.A. and M.Sc. at 21. The B.Sc. has been opened to candidates who have passed the Interm. in Arts of other Indian Univs. Regns. in Med. have been framed. The Regns. regarding (i) conditions for admission to the Interm. examns. in Class. Langs. and in Biol., (ii) conditions for admission to the examns. for the M.Sc. and D.Sc. degrees, (iii) tests to be passed by candidates for the L.T. degree, (iv) subjects of the Interm. in Arts and of examns. for the B.A. and LL.B. degree, (v) submission of applications for recognition of High Schools, (vi) fees for appearing as private candidates at examns., (vii) alteration of courses, have been amended. Rules have been framed for the election of ordinary Fellows by registered graduates.

Additions to Buildings. The Univ. until last year possessed no buildings of its own. A Senate House was opened on Aug. 3, 1912. The Law School building is under construction, and projects for a Law Hostel have been prepared.

Affiliations in Additional Courses. Agra Coll., in Zool. up to M.Sc. for 2 yrs. from July 1913; St. John's Coll., Agra, up to B.Sc. in Physics, Chem., and Biol.; Mahom. A.O. Coll., Aligarh, up to M.Sc. in Chem. and Phys., provisionally for 2 yrs.; Christian Coll., All., up to M.A. in Econ., and for 1 yr. up to the B.Sc. in Biol.; Muir Central Coll., All., up to M.A. in Econ.; Central Hindu Coll., Ben., up to M.A. in Philos.; Training Coll., Jab., for L.T.; Canning Coll., Luck., up to B.Sc. in Biol. for 2 yrs.; King George's Medical Coll., Luck., in the subjects for the first M.B., B.S.; Reid Christian Coll., Luck., permanently up to B.Sc. in Phys., Chem., and Biol.; Meerut Coll., in Commerce from July 1912, and up to the Interm. in Biol. for 1 yr.; Vict. C. of Science, Nagp., up to D.Sc. in Phys. and Chem. from July 1913.

AFFILIATED INSTITUTIONS *

There are Colls. recognized in Degree courses at Agra, Ajmer, Aligarh, Allahabad, Bareilly, Benares, Cawnpore, Gwalior, Indore, Jabalpur, Jaipur, Jodhpur, Lucknow, Meerut, Mussoorie, Nagpur.

Agra *College* Affiliated in Arts up to M.A. standard; in Sc.

* *See* Appendix V.

up to M.Sc. in Maths., Phys., and Chem., and provisionally in Zool.; in Law up to LL.B.

Number of students preparing for the B.A., B.Sc., and LL.B. 69, for M.A. 7; passed in 1913 for B.A. 22, M.A. 6, B.Sc. 8, LL.B. 51. Two hundred students reside in the Coll. Hostel and 100 in the caste Boarding-house.

Principal, and Prof. of *Engl. Lit.*—T. Cuthbertson Jones, B.A. Lond. Other Professors: *Arabic and Pers.*—Syed Mohd. Ibn Ibrahim, M.A. *Biol.*—G. E. Nicholls, B.Sc. Lond. *Chem.*—Nagendra Chandra Nag, M.A. Calc. *Econ.*—W. S. Thatcher, B.A. Camb. *Engl. and Logic*—T. F. O'Donnell, B.A. R.U.I. *Hist.*—A. Brookes, B.A. Camb. *Law*—Nilmani Dhar, B.A., B.L. Calc. *Maths.*—Beni Madhav Sarkar, M.A. Calc. *Phys.*—Harendra Nath Gupta, M.S. Calc. *Sansk.*—Krishna Lal Misra, M.A. 11 Lectrs. and Demrs.

AGRA, *St. John's College.* Affiliated up to M.A., and in Phys., Chem., and Biol. up to B.Sc. Under the general control of the Church Missionary Society. Admits non-Christians, but is especially for Christians. Has a Business Dept. providing training for public services.

Number of students preparing for the B.A. and LL.B. 61, M.A. 1; passed in 1913, B.A. 23, M.A. 1, LL.B. 2. Three hostels in charge of 7 English wardens provide accommodation for 150.

Principal, and Prof. of *Econ.*—H. B. Durrant, M.A. Vice-Principal, and Prof. of *Hist.*—A. W. Davies. Other Professors: *Engl. Lit.*—R. H. Lloyd, M.A. Ox. *Engl., Hist., and Logic*—W. K. Bonnaud; W. G. F. Smith, B.A. Camb.; Tikait Narain, B.A. All.; Gulab Rai, B.A. *Maths.*—T. D. Sully, B.A. Ox. *Philos.*—E. Drew, M.A. Ox. 2 Maulvis, 1 Pandit, and 5 Profs. and a Demr. of Science subjects.

AJMER, *Govt. College.* Affiliated up to B.A.

Number of students preparing for B.A. 8; passed in 1913, 3. A hostel and boarding-houses are attached.

Principal—E. F. Harris, B.A.

ALIGARH, *Mahomedan Anglo-Oriental College.* Affiliated up to M.A.; in Sc. up to D.Sc. in Maths., to M.Sc. provisionally in Chem. and Phys., to B.Sc. in other subjects (Biol. provisionally); in Law up to LL.B.

Principal—J. H. Towle, M.A. Camb. Professors: *Arabic*—J. Horovitz, Ph.D. Berl. *Chem.*—M. Allah Baksh, M.A. *English and Hist.*—B. H. Goldie, M.A. Ox.; D. Reynell, M.A., B.C.L. Ox.; H. C. Shuttlewood, B.A. Ox.; C. S. Harper, B.A. Ox.; M. Anamullah Khan, M.A. Calc.; M. Akhtar Adil, M.A.; Sheikh Timur, M.A. Panj.; Wilayet Ahmed, M.A. Panj. *Law*—Syed Ali Nagi, B.A.; M. Abdul Khaliq, B.A., LL.B. *Maths.*—Zia-ud-din Ahmed, M.A., D.Sc., Ph.D. Gött; J. C. Chakeravarti, M.A. Calc.; Abdul Majid Quarishi, B.A. *Philos.*—D. Auchterlonie, M.A. Aberd. *Phys.*—Wali Mohammad, B.A., Ph.D. Gött.; Firoz-ud-din Murad, M.Sc. Panj. *Science*—H. B. Dunnicliff, M.A. Camb. 1 other Prof. and 2 Demrs. in Science, and 6 Maulvis and 1 Pandit.

ALLAHABAD, *Muir Central College.* Affiliated up to M.A.; in Sc. up to D.Sc. in Chem., Phys., Maths., to M.Sc. in Zool., to B.Sc. in Bot.

Number of students preparing for B.A. and B.Sc. 75, for M.A. and M.Sc. 13; passed in 1913, B.A. 32, M.A. 9, B.Sc. 4, M.Sc. 3.

The new Govt. Hostel and the Musalman Boarding-house afford accommodation for 140. Between 100 and 200 reside in the 2 Univ. hostels.

Principal, and Prof. of *Econ.*—J. G. Jennings, M.A. Other Professors: *Arabic and Pers.*—Maulvi Hamiduddin, B.A. *Biol.*—W. N. F. Woodland, D.Sc.; Dakshina Ranjan Bhattacharya, B.Sc. *Chem.*—E. G. Hill, D.Sc.; Satish Chandra Deb, M.A.; Annoda Prasad Sarkar, D.Sc. *Engl. Lit.*—S. G. Dunn, M.A.; C. P. W. Lloyd, M.A.; Abhay Charan Mukerji, M.A.; Shiva Adhar Pande, M.A., LL.B.; Kali Partab Dube, M.A., B.Sc., LL.B. *Hist.*—G. Stewart, M.A. *Hist and Econ.*—C. Tobit, M.A. *Maths.*—R. H. Moody, I.E.S.; Umesh Chandra Ghosh, M.A.; Kumud Behari Mittra, M.A. *Philos.*—E. A. Radford, M.A. *Phys.*—J. J. Durack, M.A.; Devendra Nath Pal, M.A. *Sansk.*—Mahamahopadhyaya Pt. Ganga Nath Jha, M.A., D.Litt. A Prof. of Bot., 5 Demrs., and an Instr.

ALLAHABAD, *Christian College.* Affiliated up to M.A. in Philos. and Econ.; in Sc. up to B.Sc.

Number of students preparing for the B.A. and B.Sc. 80, for M.A. 4; passed in 1913, B.A. 23, M.A. 1, B.Sc. 2. There are 4 hostels and 1 under construction, which will together accommodate 200 students.

Principal—C. A. R. Janvier, M.A., D.D. Offg. Principal, and Prof. of *Phys.*—P. H. Edwards, M.A., Ph.D. Other Professors: *Econ.*—C. D. Thompson, B.A., Ph.D.; S. Higginbottom, M.A., B.S.A. *Engl. and Philos.*—E. P. Janvier, B.A. *Pers. and Arab.*—Md. Ismail B.A. *Sansk.*—Pandit Ganpati Shastri. 11 other Profs. and Assts.

ALLAHABAD, *Higher Grade Training Coll.* Controlled by the Director of Pub. Instrn. Affiliated in Teaching. Prepares students for the L.T. degree.

Number of students 34; passed in 1913, 30. Connected with the Coll. is a boarding-house accommodating 50 students. Grads. of other Univs. may be admitted to the Coll. with the special permission of the Director.

Principal—A. H. Mackenzie, M.A., B.Sc., A.R.C.Sc. Lond. Prof. —J. L. Watson, M.A. Headmaster of Practising School—E. M. Plomer, B.A., S.C. Lectr.—M. Fitzgerald, B.A., L.T. Lectr. in Science—Kumar Chandra Bhattacharya, M.Sc., L.T.

BAREILLY *College.* Affiliated up to the B.A.

Number of students preparing for the B.A. 25; passed in 1913, 10. There is a hostel erected by Govt.

Principal—J. H. Alderson, M.A.

BENARES, *Queen's College.* Affiliated up to the M.A., and in Science

up to the B.Sc. Supported by Govt., and under the control of the Director of Pub. Instrn.

Number of students preparing for the B.A. and B.Sc. 23, for M.A. and M.Sc. 4; passed in 1913, B.A. 2, B.Sc. 3, M.A. 3, M.Sc. 1. Connected with the Coll. is a boarding-house for district students.

Principal—A. Venis, M.A. Ox., Hon. D.Litt., C.I.E. Professors: *Arabic*—Shams-ul-Ulama Md. Abdul Jalil. *Engl. Lit.*—H. C. Norman, M.A. Edin. and Ox. *Engl. Lit., Logic, and Hist.*—H. N. Randal, M.A. Ox. *Maths.*—Ganesh Prasad, M.A., D.Sc. *Philos.*—C. M. Mulvany, M.A., B.Lit. Ox. *Sansk.*—T. K. Laddu, Dr., Lakshman Sastri Tailang. 2 Profs. and 2 Demrs. in Science.

BENARES, *Central Hindu College.* Affiliated up to M.A. in Engl., Philos., Sansk., Pers., Hist., and Pol. Econ.; in Science up to M.Sc. in Maths., and to B.Sc. in other subjects. The learning of Sanskrit is compulsory.

Number of students preparing for the B.A. and B.Sc. 63; passed in 1913, B.A. 18, B.Sc. 6. Three boarding-houses connected with the Coll. afford accommodation for 200.

Hon. Principal, and Prof. of *Hist.*—G. S. Arundale, M.A., LL.B. Camb., F.A.U., F.R.H.S. Other Professors: *Econ.*—Satya Vrata Bhattacharya, M.A. *Engl.*—J. N. Unwalla, M.A. Bom., F.B.U.; Bireshwar Banerji, M.A. Calc.; L. MacDermott, B.A. Dub.; A. V. Subbiah, Ph.D. Berne. *Hist.*—N. V. Thadani, M.A. Bom. *Logic and Philos.*—Phani Bhusan Adhikari, M.A. Calc. *Maths.*—Lakshmi Narayan, M.A.; Shyama Charan De, M.A. Calc. *Philos.*—Bhagwan Das, M.A. *Sanskrit*—C. Vishnu-Dayalu Upadhaya; Nil Kamal Bhattacharya, M.A. 7 other Profs. and 2 Demrs. in Science.

CAWNPORE, *Christ Church College.* Affiliated up to M.A. Controlled by the Lucknow Diocesan Board of Missions and a Managing Committee.

Number of students preparing for the B.A. 27; passed in 1913, 6. Has a hostel for Hindus and Mohammedans and another for Christians.

Principal, and Prof. of *Engl.*—M. S. Douglas, M.A. Vice-Principal, and Prof. of *Philos.*—E. W. Ormerod, M.A. Lectr. in *Engl. and Hist.*—W. J. Bensly, M.A. Other Professors: *Engl.*—C. J. G. Saunders, B.A.; E. C. Singh, B.A. *Logic and Engl.*—B. K. Mukerji, B.A. *Hist.*—Debi Prasad Shukla, B.A. *Maths.*—Nanak Prasad, B.A.; Swami, Dyal Seth, B.Sc. 3 Profs. of Science, Pers., and Sansk., and a Demr.

GWALIOR, *Victoria College.* Affiliated up to B.A. and B.Sc. Entirely supported by the Darbar and under the control and supervision of the Inspr.-Genl. of Educn., Gwalior State.

Number of students preparing for the B.A. and B.Sc. 25; passed in 1913, 13. Connected with it is a boarding-house for 100 students.

Principal—H. A. W. Bladen, B.A. Camb.

INDORE, *Canadian Mission College.* Affiliated up to M.A. in Philos.

Number of students preparing for the B.A. 17; passed in 1913, 9. One hostel contains between 30 and 40 single rooms. Others are in course of erection. One is under the supervision of a Christian Master.

Principal, and Prof. of *Psych. and Pol. Econ.*—J. A. Sherrard, M.A., B.D. Prof. of *Engl. and Pol. Econ.*—D. J. Davidson, B.A. *Philos.*—A. A. Scott, B.A. *Sansk.*—D. P. Rawal, B.A. 4 other Profs.

INDORE, *Holkar College.* Affiliated up to B.A. and B.Sc. Maintained by the State.

Number of students preparing for B.A. and B.Sc. 15; passed in 1913, B.A. 6, B.Sc. 2. There are boarding-houses for 60.

Principal (and Director, State Education)—G. Gardner Brown. Asst. Director—W. E. Kirby, M.A.

JABALPUR, *Government College.* Affiliated up to B.A. and B.Sc.

Number of students preparing for B.A. and B.Sc. 54; passed in 1913, B.A. 17, B.Sc. 4. There is a boarding-house on the premises.

Principal—A. C. Sells, M.A.

JABALPUR, *Training College.* Affiliated in Teaching. A Govt. institn.

Number of students preparing for the L.T. 8; passed in 1913, 8. A boarding-house is attached to the Coll.

Principal—R. McGavin Spence, M.A. Vice-Principal—Hassamal Assamal Sadarangani, M.A. Profs.—Lajja Shanker Jha, B.A.; Satish Chandra Ghoshal, B.A., B.Sc., LL.B.; Gangadhar Govind Kanitker, M.A.

JAIPUR, *Maharajah's College.* Affiliated up to M.A. and B.Sc. Maintained entirely by the Darbar.

Principal (and Director of Pub. Instrn.)—Makhanlal, M.A. Vice-Principal, and Prof. of *Science*—Ram Chandra Mukerji, B.A., F.C.S. Other Professors: *Engl. Lit.*—Damodar Prassed Saksena, M.A.; Harinarain Tosniwal, B.A. *Hist. and Pol. Econ.*—Vithal Vaman Tamhankar, B.A. *Maths.*—Kanaiyalal Mathur, B.Sc. *Sansk.*—Vireshwar Shastri; Badrinath Shastri, B.A. 3 other Profs.

JODHPUR, *Jaswant College.* Affiliated up to B.A.

Number of students preparing for B.A. 5; passed in 1913, 1.

Principal—Pandit Suraj Prakash, M.A.

LUCKNOW, *Canning College.* Affiliated up to M.A.; in Sc. up to B.Sc. in Biol. and to M.Sc. in Maths., Phys., and Chem.; in Law up to LL.B.

Number of students preparing for the B.A., B.Sc., and LL.B. 73, for M.A. and M.Sc. 4; passed in 1913, B.A. 21, M.A. 2, B.Sc. 1, M.Sc. 1, LL.B. 1.

Principal, and Prof. of *Philos.*—M. B. Cameron, M.A., B.Sc. Other Professors: *Chem.*—P. S. MacMahon, M.Sc. Manc., B.Sc. Ox.; Kula-

bhushan Bhaduri, M.A. *Engl., Hist., and Pol. Econ.*—S. B. Smith, M.A.; C. J. Brown, B.A.; S. B. Mellis-Smith, M.A.; F. T. Roy, M.A. *Maths.*—J. A. Strang, M.A., B.Sc.; Sarat Chandra Mukerji, M.A., B.L. *Pers. and Arabic*—Md. Nurul Aziz, M.A. *Phys.*—Satyendra Nath Roy, M.Sc., B.A. *Sansk.*—Debendra Nath Chakravarti, M.A.; Rama Krishna Shastri. 1 Prof. of Biol., 3 Demrs., and 2 Maulvis.

LUCKNOW, *Reid Christian College.* Affiliated up to B.A. and B.Sc. Managed by a Board representing the Foreign Missions of the M.E. Church, New York.

Number of students preparing for B.A. and B.Sc. 35; passed in 1913, 11. A hostel for Christians has accommodation for 200. Another for Hindus and Mohammedans, 50.

Principal—C. L. Bare, M.A., D.D.

LUCKNOW, *Isabella Thoburn College.* Affiliated up to B.A. Under the patronage of the Women's Foreign Missionary Soc. of the M.E. Church of America.

Number preparing for the B.A. 2; passed in 1913, 1.

Principal—Miss R. E. Robinson, M.A.

MEERUT, *Meerut College.* Affiliated up to B.A.; in Maths., Phys., and Chem. up to B.Sc.; in Law up to LL.B.; and in Commerce.

Number of students preparing for B.A., B.Sc., and LL.B. 54; passed in 1913, B.A. 11, B.Sc. 3, LL.B. 5. Has 2 Hindu hostels and 1 Musalman.

Principal—W. Jesse, M.A. Camb., F.Z.S. Prof. of *Law*—Gurcharan Das, B.A., LL.B.

MUSSOORIE, *Woodstock College* (for European and Anglo-Indian Girls). Affiliated up to B.A. in Latin, French, and Hist.

Number of students preparing for B.A. 3; passed in 1913, 3.

Principal—H. M. Andrews, M.A. Dart. U.S.A.

NAGPUR, *Hislop College.* Affiliated up to M.A. in Engl., Philos., Sansk., Pers., Hist., and Pol. Econ.; in Sc. up to B.Sc.

Number of students preparing for B.A. and B.Sc. 57; passed in 1913, 28 (B.A.). Two hostels (1 for Christians) afford accommodation for 100.

Principal, and Prof. of *Chem. and Biol.*—A. Robertson, M.B., Ch.B. Others Professors: *Engl., Hist., and Pol. Econ.*—J. F. McFadyen, M.A.; T. W. Gardiner, M.A.; B. N. Gadre, B.A. *Logic and Engl.*—S. K. Basu, M.A. *Pers.*—A. Ahmad, B.A. *Philos.*—S. P. Vaswamy, M.A. *Sansk.*—D. D. Jattar, M.A. 4 other Profs.

NAGPUR, *Morris College.* Affiliated up to M.A. in Engl., Philos., Maths., Sansk., and Hist.; in Sc. up to B.Sc.; in Law up to LL.B. Science teaching is carried on in the Vict. Coll.

Number of students preparing for B.A. and B.Sc. 38, for M.A. 1, for LL.B. 69; passed in 1913, B.A. 18, B.Sc. 1, LL.B. 50. Has a hostel for 80 students.

Principal, and Prof. of *Pol. Econ. and Hist.*—C. E. W. Jones, M.A. Ox. Other Professors : *Engl. and Hist.*—F. P. Tostevin, B.A. Ox. ; N. N. Ganguli, M.A. *Maths.*—S. P. Banerji, M.A. *Philos. and Logic*—S. C. Roy, M.A. *Sansk.*—K. C. Tamhan, M.A. 6 Lectrs.

NAGPUR, *Victoria College of Science.* Affiliated up to D.Sc. in Phys. and Chem. Maintained by the Loc. Govt.

Principal, and Prof. of *Chem.*—R. H. Beckett, B.Sc. Prof. of *Phys.*—M. Owen, M.Sc. ; Makhan Lal De, M.A.

THE QUEEN'S UNIVERSITY OF BELFAST

[Constituted, on the dissolution of Queen's Coll., Belfast, on Oct. 31, 1909; Queen's Coll. was incorporated on Dec. 30, 1849, under Act 8 and 9 Vict. cap. 66.]

VISITOR	H.M. THE KING
CHANCELLOR	Rt. Hon. EARL OF SHAFTESBURY, K.P., K.C.V.O.
PRO-CHANCELLORS	Rt. Hon. LORD PIRRIE, K.P., LL.D., D.Sc. Sir JOHN NEWELL JORDAN, G.C.I.E., K.C.B., K.C.M.G.
PRESIDENT AND VICE-CHANCELLOR	THOMAS HAMILTON, M.A., D.D., LL.D.
REGISTRAR	Prof. J SYMINGTON, M.D., F.R.S., F.R.S.E.
SECRETARY	J. M. FINNEGAN, B.A., B.Sc.
LIBRARIAN	Prof. G. G. SMITH, M.A.
CHAIRMAN OF CONVOCATION	Rt. Hon. T. SINCLAIR, M.A., D.Lit.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY

OUGHTON, HENRY, A.I.S.A.A. Lectr.

AGRICULTURE, v. *R.C.Sc.*, p. 37

ANATOMY

SYMINGTON, J., M.D., F.R.S., F.R.S.E. Prof.
MALCOLM, H. P., M.B. Demr.
MC CONNELL, R. J., M.B. Demr.
Applied Anatomy [Demr.
CRYMBLE, P. T., M.B., F.R.C.S. ENG.

ARCHÆOLOGY

FROST, K. T., M.A., B.LITT. Lectr.

BIOCHEMISTRY

MILROY, J. A., M.A., M.D. Lectr.

BOTANY (v. also *R.C.Sc.*, p. 37)

GWYNNE-VAUGHAN, D. T., M.A., F.R.S.E. Prof.
LEVENS, G., B.SC. Demr.

CHEMISTRY (v. also *Biochem.*)

LETTS, E. A., PH.D., D.SC., F.R.S.E., F.C.S., F.I.C. Prof.
MACBETH, A. K., M.A., B.SC. Asst.
REA, FLORENCE W., B.A., B.SC. ,,
Organic Chemistry
STEWART, A. W., D.SC. Lectr.

COMMERCE (v. also *Accountancy*)

CURR, A. L., B.A. Lectr.

ECONOMICS (v. also *Hist.*)
MEREDITH, H. O., M.A., M.COM. Prof.

ENGINEERING, Civil [Prof.
HUMMEL, F. H., M.SC., A.M.I.C.E.
HIGGINS, A. L., A.R.C.S., A.M.I.C.E. Asst.
(v. also *Recognized Colls.*, p. 37)

GEOLOGY and Geography
DWERRYHOUSE, A. R., M.SC., D.SC., F.G.S. Prof.
(v. also *Recognized Colls.*, p. 37)

HISTORY, Modern
POWICKE, F. M., M.A. OX. Prof.
History, Economic
GILL, C., M.A. Lectr.

HYGIENE (v. also *Pub. Health*)
WILSON, W. J., B.A., M.D., D.SC., D.P.H. Lectr.

LANGUAGES and Literature
Celtic
O'CONNELL, F. W., M.A., B.D. Lectr.
English Lang.
BELFOUR, A. O., M.A. Lectr.
English Lit.
SMITH, G. GREGORY, M.A. Prof.
MAC DOUGALL, ALLAN, M.A. Asst.
French
SAVORY, D. L., M.A. Prof.
MOORE, MISS H. A. R., B.A. Asst.
German
FREUND, M., M.A., PH.D. Prof.
Greek
DILL, SIR SAMUEL, M.A., HON. LITT.D., HON. LL.D. OX. Prof.
WHITE, NEWPORT B., M.A. Asst.
Latin
HENRY, R. M., M.A. Prof.
HANNA, H. B., B.A. Asst.

LAW, English
BAXTER, J. S., LL.B. Prof.
WHEELER, G. H., M.A., LL.B. Lectr.
Jurispr. and Roman Law
STRAHAN, J. A., M.A., LL.B. Prof.

LOGIC and Metaphysics
LAIRD, J., M.A. Prof.

MATHEMATICS [Prof.
DIXON, A. C., M.A., SC.D., F.R.S.
RIDDELL, J. R., M.A. Asst.

MEDICINE and Surgery (v. also *Hyg.*)
University Clinical Lecturers
CALWELL, W., M.A., M.D.
MOORE, J. B., M.B., F.R.C.S.I.
MC CAW, J., M.D.
BROWNE, J. W., B.A., LL.D., M.D.
Materia Medica [Prof.
WHITLA, SIR W., M.A., M.D., LL.D.
Mat. Med. and Pharmacy
FIELDEN, V. G. L., M.D., PH.C. Demr.
Medicine
LINDSAY, J. A., M.A., M.D., F.R.C.P. LOND. Prof.
LYTTLE, G. G., M.B., B.SC., M.R.C.S., L.R.C.P. Asst.
Medical Jurisprudence
THE PROF. OF *Pathology* Lectr.
THE DEMR. IN *Path., Clin.* Lectr.
Midwifery
BYERS, SIR JOHN, M.A., M.D., M.CH., M.A.O. Prof.
HOLMES, T. S. S., M.B. Asst.
Ophthalm. and Otology [Lectr
CRAIG, J. A., M.B., F.R.C.S. ENG.
Pathology
SYMMERS, W. ST. C., M.B. Prof
THOMSON, W. W. D., B.A., M.B., D.P.H. Demr.
Clinical Pathology
HOUSTON, T., B.A., M.D. Demr.
Path. Neurology
VACANT Demr.
Surgery
SINCLAIR, T., M.D., M.CH., F.R.C.S. ENG. Prof.
IRWIN, S. T., B.A., M.B. Asst.
Vaccination
M'LIESH, J., M.B., D.P.H. Teacher.

MUSIC
WALKER, L., B.A., MUS.DOC. Lectr.

PHILOSOPHY, Moral, and History of Philos.
VACANT Lectr.
Scholastic Philosophy
O'KEEFFE, D., M.A. Lectr.

PHYSICS
MORTON, W. B., M.A. Prof.
JACK, R., M.A., PH.D., D.SC. Lectr.
WYLIE, J., B.A. Demr.

PHYSIOLOGY [Prof.
MILROY, T. H., M.D., B.SC., F.R.S.E.
GIBSON, J. M'I., B.A., M.B. Demr.

PUBLIC HEALTH (v. also *Hyg.*)
BAILIE, H. W., L.R.C.P. AND S. EDIN., L.F.P.S. GLAS., D.P.H. Lectr.

TECHNOLOGY, v. *Tech. Inst.*, p. 37.

ZOOLOGY (v. also *R.C.Sc.*, p. 37)
WILSON, G., M.A., PH.D., D.SC., M.R.I.A. Prof.
WHITEHOUSE, R. H., M.SC. Demr.

CHANGES IN STAFF

Gill, C., appointed *vice* Rees.
Laird, J., apptd. *vice* Park.
Park, J., M.A., D.Lit., Prof. of Logic, deceased.
Rees, J. F., M.A., Lectr. in Econ. Hist., resigned.

GENERAL INFORMATION

FACULTIES. Arts ; Science ; Law ; Medicine ; Commerce. Music is included in the Faculty of Arts, Pub. Health in Medicine, and Agric. and Engin. in Science. There are Committees of the Senate for the Extension of Univ. Teaching, Military Instruction, Technology, Appointments, and Commerce and Industry.

MATRICULATION. Students entering the Univ. for a degree in any Faculty except that of Law are required to pass or obtain exemption from the Matricn. examn. in Engl., Maths., and three other subjects, including, in the case of entry for a degree in Arts, Greek or Latin—in Science, 1 foreign language—in Medicine, Latin and one other lang.—in Commerce, French or German.

DEGREES. In Arts—B.A., M.A., D.Lit., and for matriculated students of the late Royal Univ., B.Mus. and D.Mus. Law—LL.B., LL.D. Medicine, Surgery, and Obstetrics—M.B., B.Ch., B.A.O., M.D., M.Ch., M.A.O. Science—B.Sc., B.Sc. in Engin., B.Sc. in Agric., M.Sc., D.Sc. Commerce*—B.Sc., M.Sc., D.Sc. Diplomas are granted in Pub. Health and in Commerce.

No student is admitted to any examn. for a primary degree (the B.A., LL.B., M.B., B.Ch., B.A.O., or B.Sc.) without proof of having pursued to the satisfaction of the Prof., Lectr., or recognized Teacher the approved course in each subject in which he presents himself. The approved course in Arts, Law, and Science (including Engin.) covers

* The Senate has resolved to make a new Statute changing the degrees in this Faculty to B.Com., M.Com., D.Com.

at least 3 yrs. In Medicine 3 at least of the prescribed 5 yrs. of study must be spent in the Univ. In Agric. the course covers 4 yrs. In Arts, Science, and Commerce the Senate may admit grads. of other Univs. *ad eundem gradum.*

ARTS. For the Pass degree the compulsory subjects are Greek or Latin ; 1 other foreign language (Latin, Greek, French, or German) ; Engl. Lit. ; Maths. Three other optional subjects must be taken. Biol. may be added to enable a student to count 1 yr. of his Arts course as 1 of the 5 yrs. of the Med. course. The Honours Schools are Class., Engl., Hist., Mod. Langs., Maths., Philos., Econ.

SCIENCE. The Interm. examn. held after the 1st yr. is the same for Pass and Honours candidates, and in Engin. is the same for Civ., Mech., and Elec. Engin. candidates. Most of the 2nd and 3rd yrs. work in Mech. and Elec. Engin. is done in the Municipal Tech. Institute. In Agric. the first 2 yrs. are taken in the Univ. and the next 2 yrs. at the R.C.Sc., Dublin.

LAW. The LL.B. is open to grads. of this or other Univs. who have for 1 yr. after graduation pursued an approved course in this Univ. and passed the prescribed examns. Matriculated students who have not graduated take the 1st yr's. course in some other faculty and then 2 yrs. in the Faculty of Law.

MEDICINE. The M.B., B.Ch., and B.A.O. must be taken together. The minimum age is 21. Candidates for the Final examn. must, in addition to meeting the requirements common to all schools recognized by the Genl. Med. Council, have attended Med. and Surg. practice of an approved hospl. 27 mos. after completion of the 2nd yr. of Med. study, acted as Dresser for 3 mos. and Clin. Clerk for another 3 mos. in a recognized hospl., had clin. instruction in Dis. of Women and of Children (3 mos.), and in Ophth. and Ot. (3 mos.) in recognized special hospls. or wards. The M.D., M.Ch., or M.A.O. may be taken 3 yrs. (in the case of grads. in Arts or Science 2 yrs.) after graduation in Med. Proof of having pursued in the interval the prescribed courses is required, and either a special examn. must be passed or a satisfactory thesis or other evidence of original study or research submitted and an examn. thereon passed. The course for the Diploma in Pub. Health covers at least 9 mos. No part of it need be taken in Belfast. The Hospls. available for Clin. Instruction include General Hospls. containing over 450 beds, and fever, maternity, children's, women's ophthalmic, eye, ear and throat, consump. and chest, and skin diseases hospls. (over 550 beds), and a Lunatic Asylum with 1200 inmates.

COMMERCE. The full course for the B.Sc. covers 3 yrs. Candidates who have passed the Final Degree examn. of this or any other Univ. of the U.K. or present similar evidence of study satisfactory to the Faculty are excused the Interm. examn. and may graduate after 2 yrs. of

study in the Faculty. In the Final the main subject is Economics. Accounting is also compulsory. The Diploma is awarded after attendance in the Faculty on an approved course extending over at least 2 yrs. and passing examns. of the same standard as, but of smaller extent than, the Interm. and Final examns. for the Degree. Candidates may attend lectures either in the evening or in the day.

Higher Degrees in Arts, Law, and Science. The M.A. may be taken by a B.A. 1 yr. after graduation, either by passing an examn. or by presenting a satisfactory thesis or as a recognition of independent research. The (1) D.Lit. and (2) LL.D. are conferred on grads. of this Univ. distinguished in (1) letters, or in literary, philos., or hist. research, or (2) Law or in legal or hist. research.

The M.Sc. is open to a B.Sc. of the Univ. and grads. of other Univs. holding a degree of similar rank after the lapse of not less than 1 yr. from graduation. It may be conferred on submission of a thesis or as a recognition of independent research. The D.Sc. is open to grads. of this Univ. 3 yrs. after graduation in any faculty. It is conferred for research or scientific work in relation to Science or Commerce or Industry or for distinction in Science, Engin., or other practical application of Science, or in Economics or other application of scientific methods to Commerce and Industry.

Scholarships, &c., for Graduates. Post-grad. studentships of £50 : 5 in Arts, which may be raised by £25 and continued for a 2nd yr. ; 4 in Science. Special grants may be made to grads. in Med. who desire to prosecute original research or clin. study. Mackay Wilson Travelling Med. Scholarship, £100, open to a student of the Univ. at the end of his course desiring to spend a year at a Med. Institn. abroad. Four Studentships of the aggregate annual value of £330 are open to grads. of the Univ. One of the 1851 Exhibn. Science Research Scholarships (£150 for 3 yrs.) is allotted to this Univ. every alternate year.

An Appointments Committee has been formed. The Secy. is the Secy. of the Univ.

Women are admitted to all classes and degrees on equal terms with men.

Residential Facilities. There is no hostel for men ; one for women is being built (*v. infra*, " Benefactions ").

The Library contains over 70,000 vols.

Museums. Nat. Hist. ; Med. ; Mat. Med. ; Class. Archæol. ; San. Science.

The Laboratories provide private rooms and other facilities for research in Chem., Nat. Hist., Physiol., Path. and Bact. There are also Phys. and Engin., Anat., and Pharm. labs.

Observatory. A fine 7½-inch Refractor Equatorial has lately been presented to the Univ., and it is hoped soon to erect this on a suitable site.

University Extension. Four to six courses of lectures are delivered every winter on popular subjects, and well-attended classes in connexion with the W.E.A. have been established.

Publications. The *Calendar* (Mayne, Boyd, and Son, Belfast), price 3s. Pamphlets containing the Regns. of the various Faculties are published separately and may be had free from the Secy. The students have a monthly journal.

RECOGNIZED COLLEGES AND TEACHERS

Municipal Technical Institute, Belfast, providing instruction forming part of the Degree courses in: *Mech. Engin.*—Prof. J. H. Smith, D.Sc., A.R.C.S.; W. T. Crawford, D.Sc. *Elec. Engin.*—Prof. R. Stanley, B.A., A.M.I.E.E.; H. Gooch, B.Sc. *Textile Industries*—Prof. F. Bradbury; W. T. Cowden. *Applied Chem.*—Prof. H. Wren, M.A., D.Sc., Ph.D.; E. Clayton, F.C.S. *Design*—R. A. Dawson, A.R.C.A.

Royal College of Science, Dublin, providing instruction forming part of the Degree course in Agric.: *Agric.*—Prof. J. Wilson, M.A., B.Sc. *Agric. Botany*—D. Houston, F.L.S. *Agric. Chem.*—G. Stephenson. *Botany*—Prof. T. Johnson, D.Sc., F.L.S. *Geology*—Prof. G. A. J. Cole, F.G.S. *Zoology*—Prof. G. H. Carpenter, B.Sc.

THE YEAR 1912-13

Benefactions Received. £35,000 for a Hostel for women students (Protestant) now in course of erection; a scholarship (Mrs. Magrath) of about £113 p.a. open to 4th yr. Med. students.

New Departments, &c. It is hoped to establish shortly a Chair of Education.

Number of Students. 569, including 136 women.

Honorary Degrees Conferred. *D.Sc.*—J. Norman Collie, F.R.S.; Sir Joseph Larmor, F.R.S.; Sir Arthur W. Rücker, F.R.S. *LL.D.*—Sir Donald MacAlister; Rt. Hon. Christopher Palles, Lord Chief Baron of the Exchequer of Ireland.

Other Degrees. D.Sc., 1; LL.D., 3; M.D., 3; M.Ch., 1; M.A., 8 (including 2 women); M.Sc., 1; B.A., 51 (14 women); B.Sc., 15 (7 women); B.Sc. in Engin., 10; B.E., 1; LL.B., 2; M.B., B.Ch., B.A.O., 39; B.Sc. in Commerce, 2; Diploma in Pub. Health, 11.

UNIVERSITY OF BIRMINGHAM

[Incorporated by Royal Charter on March 24, 1900. Mason Univ. Coll., incorporated in 1897, was merged in the Univ. with effect from Oct. 1, 1900.]

VISITOR	H.M. THE KING.
CHANCELLOR	Rt. Hon. J. CHAMBERLAIN, M.P., LL.D.
VICE-CHANCELLOR	GILBERT BARLING, M.Sc., F.R.C.S.
PRO-VICE-CHANCELLOR	F. C. CLAYTON, Esq., J.P.
TREASURER	H. C. PINSENT, Esq., M.A.
PRINCIPAL	Sir OLIVER J. LODGE, D.Sc., LL.D., F.R.S.
VICE-PRINCIPAL, REGISTRAR	R. S. HEATH, M.A., M.Sc., D.Sc., Prof. of Mathematics.
SECRETARY	G. H. MORLEY.
LIBRARIAN	W. H. COPE.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING

MARTINEAU, C. E., M.A. CAMB., M.COM., F.C.A. Prof.

ANATOMY (v. also *Zool.*)
Human A. and Anthrop.

THOMPSON, PETER, M.D., M.D., CH.B. MANC. Prof.

YEATES, T., M.B., C.M. EDIN., B.HY., D.P.H. DURH. (Spl. Lectr. in *Osteol.*) Demr.

COGHILL, VIOLET A. P., M.B., CH.B. EDIN. Demr.

BENNETT, W. E., M.B., CH.B., F.R.C.S. Hon. Demr.

EVANS, J. J., M.D., C.M. EDIN., F.R.C.S. Hon. Demr.

BOTANY

WEST, G. S., D.SC., M.A. CAMB., A.R.C.S. Prof.

ELLIOTT, JESSIE S., D.SC., B.SC. LOND. Lectr. and Demr.

BREWING [Prof.

BROWN, A. J., M.SC., F.R.S., F.I.C.

POPE, T. H., B.SC., F.I.C. Lectr.

CHEMISTRY

FRANKLAND, P. F., M.SC., LL.D. ST. AND., PH.D. WÜRZ., B.SC. LOND., F.R.S. Mason Prof.

MCCOMBIE, H., M.A. ABERD., B.SC. LOND., PH.D. STRASS., A.R.C.S., F.I.C. Asst. Lectr.

TINKLER, C. K., D.SC., B.SC. LOND. AND WALES Asst. Lectr.

COATES, J. E., M.SC. WALES (Special Lectr. on *Physical Chemistry*) Asst. Lectr.

FRANKLAND, E. P., M.SC., B.A. CAMB., PH.D. WÜRZ. Asst. Lectr. and Demr.

VANSTONE, E., B.SC. WALES ,,

CHALLENGER, FREDK., B.SC. LOND., PH.D. GÖTT., A.I.C. Asst. Lectr. and Demr.

COMMERCE

ASHLEY, W. J., M.COM., M.A. OX., PH.D. BERL. Prof.

HEATON, H., M.A. LEEDS Asst. Lectr.

Commercial Law

TILLYARD, F., M.COM., M.A. OX., BAR.-AT-LAW Lectr.

DENTISTRY (v. also *Metall.* and *Med., Clin.*)

D. Anat. and Physiol. [Lectr.

HUMPHREYS, J., M.D.S., L.D.S.I.

D. Histol. and Path. [Lectr.

WELLINGS, A. W., B.D.S., L.D.S.

D. Materia Med.

MADIN, W. T., B.D.S., L.D.S. Lectr.

D. Mechanics [Lectr.

DONAGAN, A. E., M.A. CAMB., L.D.S.

D. Surgery

HUXLEY, F. E., M.D.S., M.R.C.S., L.D.S. Lectr.

ECONOMICS (*included in Comm. and Finance Courses*)

EDUCATION [Organizing Prof.

HUGHES, A., M.A., M.A. OX.

DAVIS, MURIEL O. Asst.

Day Training College

JONES, R. A., M.A. Headmaster.

LILLEY, MARY S., M.A. Headmistress.

ENGINEERING

Civil Engineering

LEA, F. C., D.SC., A.M.I.C.E. Prof.

VACANT Lectr.

PANTON, R. C., B.A., B.A.I. Asst. Lectr. and Demr.

CHADWICK, P. M., B.SC. LOND., A.C.G.I. Asst. Lectr. and Demr.

Town Planning

UNWIN, R., F.R.I.B.A. Lectr.

Electrical Engineering

KAPP, G., M.SC., D.ENG., M.I.C.E., M.I.E.E. Prof.

KIPPS, E. J., M.SC., M.I.E.E. Lectr.

WALL, T. F., D.SC. MANC., M.ENG.LIT., A.M.I.C.E., A.M.I.E.E. Lectr.

SHEARING, G., B.SC. LOND., A.M.I.E.E. Asst. Lectr. & Demr.

Mechanical Engineering

BURSTALL, F. W., M.SC., M.A. CAMB., M.I.C.E., M.I.E.E. Chance Prof.

PORTER, R. C., M.SC. MANC., A.M.I.C.E. Lectr.

FISHER, W. E., D.SC. BIR. Demr.

Machine Design [Lectr.

BROSCOMB, F. J., B.SC., A.M.I.M.E.

STEWART, J. G., M.SC. Asst. Lectr.

FINANCE

KIRKALDY, A. W., M.A., M.COM., B.LITT. OX. Prof.

GEOGRAPHY and Geology

WILLS, L. J., M.A. Senr. Lectr.

GEOLOGY and Physiography

BOULTON, W. S., B.SC., A.R.C.S., F.G.S. Prof.

RAW, F., B.SC. LOND. (Special Lectr. in *Petrology*) Lectr.

HISTORY [Prof.

BEAZLEY, C. R., M.A., D.LITT. OX.

SIDGWICK, ROSE, M.A. Lectr.

HYGIENE and Public Health (v. also *Med.—Path. and Bact.*)

HILL, A. BOSTOCK, M.SC., M.D., D.P.H. Prof.

AUDEN, G. A., M.D. Asst. Lectr. in *Hygiene.*

LANGUAGES and Literature

English

DE SÉLINCOURT, E., M.A., D.LITT. OX. Prof.

MACMILLAN, M., M.A. OX., D.LITT. Lectr.

HISLOP, G., M.A. EDIN. Asst. Lectr.

French

CHATELAIN, H. L., M.A., AG. DE GRAM., D.-ÈS-L. Prof.

DEMEY, P., L.-ÈS-L. Lectr.

ASHTON, H., B.A. CAMB., DOC. DE L'U. PARIS Asst. Lectr.

LEPETIT, MLLE. J. Asst.

German [Prof.
WICHMANN, K., M.A., PH.D. KIEL
SANDBACH, F. E., M.A. CAMB., PH.D. STRASS. (Spl. Lectr. in *Commercial G.*) Lectr.
INTZE, O., PH.D. ERL. Asst. Lectr.

Greek and Latin
SONNENSCHEIN, E. A., M.A., D.LITT. OX. Prof.
CHAMBERS, C. D., M.A. OX. Lectr.

Greek
STOCK, ST. G., M.A. OX. Lectr.

Italian and Spanish [Lectr.
DE ARTEAGA, F., M.A., M.A. OX.

LAW, v. *Comml. Law*

MATHEMATICS
HEATH, R. S., M.A. CAMB., M.SC., D.SC. LOND. Mason Prof.
PREECE, C. T., M.A. CAMB. Lectr.
BRUNT, D., B.A. Asst. Lectr.
KENNY, A. J., M.A. DUB. ,,

MEDICINE and Surg. (v. also *Hyg.*)

Anæsthetics
MCCARDIE, W. J., B.A., M.B., B.C. Tutor at Genl. Hospl.

Aural Surgery [Clin. Lectr.
FOXCROFT, F. W., M.D., C.M.

Bacteriology, v. *Path.*

Dermatology [Clin. Lectr.
HEATH, A. D., M.D., M.R.C.P.

Diseases, Mental
HUGHES, P. T., M.B., CH.M. EDIN., D.P.H. LOND. Lectr.
ROSCROW, C. B., L.R.C.P., L.R.C.S. (Supt. of City Asylum) Lectr.

Diseases of Women, v. *Midw.*

Fevers [Lectr.
CARGIN, H. M., M.B., CH.B., D.P.H.

Forensic Med. and Toxicol.
MORRISON, J. T. J., M.A., M.SC., M.B. CAMB., F.R.C.S. Prof.
WYNN, W. H., M.SC., M.B., CH.B., M.D., B.SC. LOND., M.R.C.P. Asst.

Materia Medica
KNEALE, J. C., M.B., CH.B., L.R.C.P., L.R.C.S. EDIN., M.P.S. Lectr.
GREENWOOD, F. R., M.B., CH.B., M.D., B.S. LOND., M.R.C.S. Demr.

Medicine
SAUNDBY, R., M.SC., M.D. EDIN., F.R.C.P., LL.D. Prof.
KAUFFMANN, O. J., M.D., F.R.C.P. Prof.
MACKEY, L. G. T., M.D., CH.B., M.R.C.P. Senr. Med. Tutor-Asst.

Medicine, Clinical
PROFS. KAUFFMANN AND SIR. R. SIMON Lectrs.
WILSON, T. S., M.D., F.R.C.P. (Lectr. on Med. for *Dent.* students) Lectr.
SHORT, T. S., M.D., M.R.C.P. Lectr.
RUSSELL, J. W., M.A., M.D., F.R.C.P. Lectr.
STANLEY, D., M.D., M.R.C.P. Lectr.
EMANUEL, J. G., M.D., M.R.C.P. Lectr.
BARNES, A. S., M.D., M.R.C.P. Asst. Lectr.
THE ASSTS. IN *Forensic Med.* AND *Med.* Asst. Lectrs.
SAWYER, J. E. H., M.D., M.R.C.P. Tutor and Asst. Lectr.
PARSONS, L. G., M.D., M.R.C.P. ,,

Midwifery and Dis. of Women
VACANT Prof.
WILSON, T., CH.M., M.D. LOND., F.R.C.S. Lectr. and Clin. Lectr.
PURSLOW, C. E., M.D. LOND., M.R.C.P. Asst. and Clin. Lectr.
WHITEHOUSE, H. B., M.S., F.R.C.S. Asst. Clin. Lectr. and Gynæc. Tutor.

Ophthalmology
VACANT Prof.
LLOYD-OWEN, D. C., M.D., F.R.C.S.I. Clin. Lectr.
ALLPORT, W., M.B., B.S., F.R.C.S. EDIN. Clin. Lectr.

Pathology and Bacteriology
LEITH, R. F. C., M.A., M.SC., M.B. EDIN., F.R.C.P.E. Prof.
DOUGLAS, SHOLTO, M.A., M.D. OX., M.R.C.S., L.R.C.P. Path. Tutor and Lectr.

LEWIS, C. J., M.D., D.SC. EDIN., F.R.C.P.E. (Spl. Lectr. in *Hygiene*, &c.) Asst. Lectr.
BALL, L., M.B., B.S., M.R.C.P. Path. Tutor and Junr. Asst.

Pharmacology
POTTS, W. A., M.A. CAMB., M.D., C.M. EDIN. Lectr.

Surgery [Prof.
HASLAM, W. F., M.B., CH.B., F.R.C.S.
GAMGEE, L. P., F.R.C.S. Asst.

Clinical Surgery
THE PROFS. OF *Surg.* AND OF *For. Med.* Lectrs.
HEATON, G., M.S., M.B., B.CH., F.R.C.S. Lectr.
LUCAS, A., F.R.C.S. Lectr.
LEEDHAM-GREEN, C. A., CH.M., F.R.C.S. Lectr.
THE ASST. IN *Surg.* Asst. Lectr.
BARNES, F., M.B., M.S., F.R.C.S. ,,
WARD, B. J., F.R.C.S. ,,
Asst. Lectrs. and Surg. Tutors
BARLING, G., M.B., M.S., F.R.C.S.
WOODMAN, E. M., M.S., F.R.C.S.
BILLINGTON, W., M.B., M.S., F.R.C.S.
NUTHALL, A. W., CH.M., F.R.C.S.

Therapeutics
SIMON, SIR ROBERT M., KT., B.A., M.D., F.R.C.P. Prof.

Vaccination
LINE, W. H., M.D., D.P.H. Instr.

METALLURGY [Ferny Prof.
TURNER, T., M.SC., A.R.S.M., F.I.C. (Lectr. in *Dent. M.*)
HUDSON, O. F., M.SC., A.R.C.S., (Instr. in *Assaying* and Spl. Lectr. in *Metallography*) Lectr.
COE, H. I., A.R.C.S. Asst. Lectr. and Demr.

MINING [Prof.
CADMAN, J., M.SC., D.SC. LOND.

Coal Mining and Surveying
CHUBB, A., B.SC. GLAS. Demr. and Lectr.

Metal M. and Econ. Mineralogy
JEFFERY, J. L., A.R.S.M. Demr. and Lectr.

Mine Rescue Work
VACANT Lectr.

MUSIC
BANTOCK, G., M.A. R. Peyton Prof.

PHILOSOPHY, Mental and Moral, and Pol. Econ.
MUIRHEAD, J. H., M.A. OX., LL.D. GLAS. Prof.
HARVEY, J. W., B.A. OX. Lectr.

PHYSICS
POYNTING, J. H., M.SC., SC.D. CAMB., HON. D.SC. MANC., F.R.S. Mason Prof.
SHAKESPEAR, G. A., M.A. CAMB., D.SC., B.SC. LOND. (Spl. Lectr. in *Exper. P.*) Lectr.
BARLOW, G., D.SC. BIRM., WALES, AND LOND. Asst. Lectr.
KEENE, H. B., B.SC. Asst. Lectr.
D'ALBE, E. E. FOURNIER, M.SC., B.SC. LOND., A.R.C.S. Asst. Lectr.

PHYSIOLOGY
CARLIER, E. W. W., M.SC., M.D. EDIN., F.R.S. EDIN. Prof.
MAITLAND, T. G., B.SC., M.D., D.PHIL. MANC. Lectr.

TECHNOLOGY, v. *Brewing*

ZOOLOGY and Comp. Anat.
GAMBLE, F. W., M.SC., D.SC., F.R.S. Mason Prof.
BOULENGER, C. L., M.A. CAMB., D.SC. Lectr.

CHANGES IN STAFF

Auden, G. A., appointed *vice* Sisam.
Barling, G., Prof. of Surg., resigned on apptmt. as Vice-Chancellor.
Boulton, W. S., Cardiff, apptd. *vice* Lapworth.

Carter, A. H., Prof. of Med., resigned.
Edwards, L. W., Asst. in Training Coll. for Men, resigned on apptmt. to a post in a Training Coll. at Cairo.
Graham, L., Demr. in Anat., resigned.
Haslam, W. F., Lectr. on Clin. Surg., apptd. *vice* Barling.
Hollings, Miss M. A., Asst. to the Prof. of Educn., resigned on apptmt. as Warden of Coll. Hall, Univ. of Lond.
Jones, R. A., apptd. *vice* Roscoe.
Kauffmann, O. J., Lectr. on Clin. Med., apptd. *vice* Carter.
Lapworth, C., Prof. of Geol., resigned.
Lloyd, Jordan, Prof. of Surg., deceased.
Malins, E., Prof. of Midw. and Dis. of Women, resigned.
Roscoe, F., Hdmaster of the Training Coll. for Men, resigned on apptmt. as Secy. of the Teachers Registn. Council.
Sisam, W., Asst. Lectr. in Hygiene, resigned.
Smith, P., Prof. of Ophth., resigned.
Whitworth, E. S., apptd. *vice* Edwards.
Wishart, W. G., Asst. Lectr. in Mech. Engin., resigned.

GENERAL INFORMATION

The Charter prescribes instruction in all branches of a liberal education and the prosecution of original research in all its branches (§ 10); especially the provision of such instruction as may be of service in the manufactures, commerce, and industrial pursuits of the Midlands. The Engineering, Mining, and Metallurgical laboratories are exceptionally well equipped. There is also a Brewing laboratory.

Faculties, &c. Arts—*Dean*, Prof. A. Hughes; Science—*Dean*, Prof. P. F. Frankland; Medicine—*Dean*, Prof. P. Thompson; Commerce—*Dean*, Prof. W. J. Ashley. A Day Training Coll. in connexion with the Univ. prepares students (men and women) to become certificated teachers in Public Elem. Schools. There are Agric., Brewing School, Clinical, Dental, Foreign Matricn., Milit. Educn., Social Study, and Univ. Extension Boards or Committees.

Matriculation. The minimum age for admission to the Univ. is 16. Secondary Schools are examined by means of the Matricn. Papers and School Certifs. awarded on the results of the examns.

University Terms, 1913–14. In Arts, Science, and Commerce the Univ. Session or academic year is divided into 3 terms. The winter term 1913–14 begins Oct. 7 and ends Dec. 20; spring term begins Jan. 13, ends March 28; summer begins April 28, ends June 27. In Medicine there are 2 sessions—Oct. 7 to March 28, and April 28 to June 27.

Degrees, Diplomas, &c. In Arts—B.A., M.A., D.Litt., D.Phil., B.Mus., D.Mus. In Science—B.Sc., M.Sc., D.Sc.

In Medicine—M.B., M.D., Ch.B., Ch.M., B.Sc. (Public Health), M.Sc. (Public Health), B.D.S., M.D.S.

In Commerce—B.Com., M.Com.

Honorary Degree—LL.D.

Diplomas—Art Instructor's, Brewing, Dent. Surg. (L.D.S.), Mining (Coal, Metal, and Petroleum), Secondary Teachers', Social Study.

Certificates in Brewing.

No degree can be obtained without attendance upon prescribed courses in the Univ. extending over at least 3 academic years after matricn., except in the case of a candidate from another Univ. (*see below*, Recognition of other Univs.).

A Lectr., Asst. Lectr., or Demr. of 2 yrs. standing may be granted an official degree in his faculty on the recommendation of his Prof. and on submission of a contribution to Science, Lit., or Med., or a thesis. *Ad eundem* degrees are granted only to persons specially connected with the Univ. and residents in the City and Midland district.

Arts.—A B.A. may be admitted to the M.A. examn. after 1 yr. of further study. Specialized 3 yrs. courses leading to the M.A. may be taken in the following subjects after passing the Interm. examn.—Mod. Langs., Classics, Engl. Lit., Hist. In the Interm. examn. Latin, Engl. Lang. and Lit., Pure Maths. or Logic, and one modern Foreign Lang. are compulsory subjects.

In Pure Science, even the Bachelor's degree is considerably specialized, the 2 final years being devoted to one principal and 2 subsidiary subjects, and Honours are awarded for special distinction in the principal subject. But the true Honours degree is the M.Sc., which may be taken after 1 year of further study and research in some special subject.

In Applied Science the courses include a 4 yrs. course for the B.Sc. degree in Engin. (Mech., Civ., or Elec.), of which the 1st yr. is devoted to Maths. and Science, and 3 yrs. courses in Metall. and Mining (Coal, Metal, or Petroleum). Mining candidates may take the Matricn. examn. at the end of the 1st yr. instead of before it. In Engin. extensive equipment is provided for practical instruction. The Univ. Power Station, which supplies the whole Univ. with lighting, heat, and power, constitutes the Heat Engin. laboratory. The *Elec. Engin.* course is the same as the Mech. in 1st 2 yrs., and only differs in the 3rd and 4th in the increased time spent in the E.E. lab. and on the design of examples of elec. apparatus. In *Mining* courses, whether for the Degree or for the Diploma, practical work in a mine and courses in ambulance, and, in the case of coal mining, in mine rescue work, are obligatory. The regns. have been recognized by the Home Dept. under the Coal Mines Regn. Act, 1911.

The *Brewing* Diploma course extends over 3 yrs., of which the 3rd is devoted to lectures on Tech. and practical work in the Brewing lab. A special Diploma in the Tech. of Brewing may be obtained by grads. who have taken the B.Sc. with Biol. and Chem. of Fermentation as principal subject after a further course of study of 1 yr. Certif.

courses for brewers and maltsters, and shorter courses in brewing and the fermentation industries generally, are also provided.

MEDICINE. As a rule the first 4 of the requisite 5 yrs. of Med. study must be spent in the Univ. Attendance at another Univ. may be accepted by the Senate as equivalent to 1 of the 4 yrs. By devoting 6 yrs. instead of 5 to study in the Univ. students may obtain the B.Sc. in addition to the Med. degree. The 2nd and 3rd yrs. of such a combined course are devoted to Anat. and Physiol. The *Public Health* course (Diploma or Degree) extends over 9 mos. The examn. for the Degree is of a higher standard than that for the Diploma and includes Geol., in which a 3 mos. course must have been taken. The General and Queen's *Hospitals* have more than 500 beds. Other hospls. available for students are the Fever, Eye, Ear and Throat, Orthopædic and Spinal, Children's, Lying-in, and Women's, and the Lunatic Asylum. The *Dental* courses, organized by the Univ. in association with the Dental Hospl., qualify not only for the Univ. Degree and Diploma, but for the Diploma in Dent. Science of all Licensing bodies. Candidates for the L.D.S. must have had 4 yrs. professional study and have passed the four prescribed Univ. examns.

COMMERCE. Every candidate for the B.Com. degree must attend 3 full courses in one modern Foreign Lang., but in each year an option is given between a second lang. and a science applicable to manufacture, so that a student expecting to be engaged in the commercial management of a manufg. business or mine or agricultural undertaking can devote, if he chooses, one-third of his time to work in applied science. The courses are not adapted to meet the requirements of a student wishing to become a technical expert rather than a commercial manager. Suitably qualified persons from other Univs. (or institns. of Univ. rank) may take the B.Com. in 2 yrs., of which 1 may in exceptional circumstances be spent elsewhere than at Birmingham.

The SOCIAL STUDY Diploma involves Univ. courses, visits of observation, and practical work. The programme can be accomplished by students who have already had practical experience in 1 academic yr. It is designed especially for persons wishing to prepare themselves for public administrative work, charity organization, factory welfare work, Church work, and for officials of trade unions and similar societies. The visits of observation are to workhouses, schools, hospls., factories, &c. The Practical work includes office work, visiting in connexion with such agencies as the City Aid Society, Care Committees, Country Holiday Fund. A Higher Diploma is granted after a 2nd yr. of study to candidates satisfying all the requirements with a high degree of credit.

The ART INSTRUCTOR'S DIPLOMA is awarded to candidates trained by the Univ. in conjunction with the Municipal School of Art. It involves 4 yrs. study in the School and attendance at Univ. courses extending over 2 yrs.

Candidates for the SECONDARY TEACHERS' DIPLOMA must be grads. of a Univ. of the U.K. or have equivalent qualifications. The course extends over 1 yr. and includes regular attendance in an approved Secondary school.

RESEARCH. Short courses of advanced lectures are given in scientific subjects and in the Faculty of Arts in connexion with the special schools. Members of the staff take an active part in the proceedings of the students' Chem., Phys., Engin., and similar societies, helping them to organize really instructive discussions.

SCHOLARSHIPS FOR ADVANCED STUDENTS. The Walter Myers Travelling Scholarship of £150 for 1 yr. (renewable) for research in Path. or Clin. Med. is open to grads. in both Med. and Science of this Univ.; 10 scientific research scholarships (6 of £96 and 4 of £50 each) tenable for 1 yr. are offered annually. Most of them are open only to students of the Univ.; the nomination to one of the 1851 Exhibition Science Research Scholarships (£150 for 2 yrs.) is annually placed at the disposal of this Univ. Holders of these scholarships generally reside in a Continental Univ. during their period of tenure.

RECOGNITION OF STUDIES IN OTHER UNIVS. There is some reciprocity with Oxford. Grads. of Ox. with the Ox. Diploma in Scientific Engin. and Mining are eligible for the B.Sc. in Engin., Mining, or Metall. after 2 yrs. study; provided that Mech. and Elec. Engineers have taken Engin. Principles and Machine Drawing and Electricity, and Mining students Surveying, Geol., and Mining and Engin. Hygiene and Mine Ventilation. Birm. students of 2 yrs. standing are admitted to Ox. on favourable terms.

Grads. or (except as regards Applied Science) persons who have passed Degree Examns. of other Univs. with qualifications for advanced study or research are admitted as candidates for the M.Sc. or M.A. after 1 year of regular study or research.

Grads. or persons who have passed Degree Examns. of other Univs. in Pure Sc. may, if qualified to enter at once on the 3rd yr. tech. courses, take the B.Sc. after 2 years' study in this Univ.

Grads. in Medicine of other Univs. who have taken 3 yrs. in the Birm. Med. School are admitted to the M.D. or Ch.M. examn. after 1 yr. in post-grad. study in a lab. of the Univ. or an approved hospl. Other grads. in Med. of other Univs. are admitted if they hold a degree of an approved Univ. of the U.K. or colonies recognized by the Genl. Med. Council, after 2 yrs. of post-grad. study or of special study in an approved appointment in a hospital.

RESIDENTIAL FACILITIES. A Univ. Hostel for Women with accommodation for over 70. (Warden—Miss S. M. Fry, M.A.) A list of approved lodgings is maintained.

WOMEN are eligible to be members of the Court of Govrs., and all courses, scholarships, Degrees, and Diplomas are open to them.

APPOINTMENTS. There is no Appointments Board. The Profs. of Educn. and of Tech. subjects assist their grads. to find employment.

LIBRARY. About 72,000 vols. Medical students are allowed to read in the Library of the Birm. Med. Inst.

MUSEUMS. Zoological and Geological.

LABORATORIES. The Chem. Lab. has nearly 100 benches for junr. students and special Organic, Phys., Electro-Chem., Analytical, and Pub. Health depts., and dark rooms and research labs. A special feature is the elec. installation permitting of currents of very varied density and voltage being obtained throughout the building. Reference has already been made to the Brewing Lab. and the Power Station. The Civil Engin. labs. include testing machines of high capacity (one of 700,000 lb.). A table at the Port Erin Biol. Lab. is reserved for Birm. students.

A small OBSERVATORY is attached to the Dept. of Physics.

UNIVERSITY EXTENSION. The Committee provide for courses of Lectures on Lit., Hist., Econ., Law, Langs., Educn., Physics, Chem., Zool., Bot., Metall., Mining, Geol., Art, Music, and Archit. within a reasonable distance from Birmingham. A Joint Committee of nominees of working-class organizations and of the Senate have organized Tutorial and Preparatory Classes and Pioneer courses in the City and neighbouring towns, and evening lectures in the City in connexion with the Workers' Educnl. Assocn.

PUBLICATIONS. The *Calendar*, pubd. in Oct. by Cornish Bros., Birm., price 2s.; sections of the *Calendar*, comprising Regns. and Syllabuses for Degrees, are pubd. in June; the *Mermaid*, six issues annually, by Cornish Bros., 6d. each.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. A donation of £1000.

A NEW DEPARTMENT of Agric. Zool. has been established under the supervision of Prof. Gamble. The Bd. of Agric. has made a grant for the study of *Helminthology*.

NUMBER OF STUDENTS (1911–12). Full-time students preparing for Degrees or Diplomas, 781; other full-time students, post-grad. 8, others 87; part-time Degree and Diploma students, 27; other part-time students, 129.

DEGREES CONFERRED (1911–12). M.A., 13; B.A., 41; B.Mus., 1; D.Sc., 2; M.Sc., 17; B.Sc., 54; M.B., Ch.B., 10; M.Com., 2; B.Com., 3.

Of the B.A. degrees 24, and of the B.Sc. 12, were conferred on students in training for Teacherships in Elem. Schools.

Affiliation. Arrangements are being made to enable Theol. students of *Lichfield* and *Handsworth Theological Colleges* to take the 2nd and 3rd yrs. for the B.A. in their own Colls. The *Midland Institute* will also be recognized as an affiliated institn. under Ordinance 79.

Additions to Buildings. A new wing is being added to the Women's Hostel.

UNIVERSITY OF BISHOP'S COLLEGE, LENNOXVILLE

[Founded 1843. Constituted a University by Royal Charter 1853. Constitution defined by Acts of the Quebec Legislature in 1843, 1870, and 1900. Affiliated to Oxford and Cambridge.]

PRESIDENT OF THE CORPORATION AND VISITOR OF THE COLLEGE	Rt. Rev. the LORD BISHOP OF QUEBEC, D.D., D.C.L.
VICE-PRESIDENT AND VISITOR	Rt. Rev. the LORD BISHOP OF MONTREAL, D.D., D.C.L.
CHANCELLOR	JOHN HAMILTON, M.A., D.C.L.
VICE-CHANCELLOR AND PRINCIPAL OF THE COLLEGE, AND DEAN OF FACULTY OF ARTS	R. A. PARROCK, M.A. Camb., LL.D., D.C.L.
VICE-PRINCIPAL AND DEAN OF FACULTY OF DIVINITY	F. J. B. ALLNATT, D.D., D.C.L., Canon of Quebec.
REGISTRAR	J. C. STEWART, Bursar and Secretary of the College.

PROFESSORS AND LECTURERS

THE PRINCIPAL, Hamilton Prof. of *Classics* and Lectr. in *Liturgics* and *Patristics*.

THE VICE-PRINCIPAL, Harrold Prof. of *Divinity*.

VIAL, F. G., B.D. (Warden of Div. House), Prof. of *Pastoral Theol.* and Lectr. in *Classics*.

BURT, H. C., M.A. TOR., Prof. of *Philos.* and *Econ.* and Lectr. in *Church Hist.*

BOOTHROYD, E. E., M.A. CAMB., Prof. of *History* and *English Lit.*

RICHARDSON, A. V., M.A. CAMB., Lectr. in *Maths.* and *Nat. Science.*

CALL, F. O., M.A., Prof. of *Modern Languages.*

SHIRES, R. J., B.A., Lectr. in Preparatory Arts subjects.

CHANGES IN STAFF

Call, F. O., M.A., promoted from Lectr. to Prof.

GENERAL INFORMATION

The Anglican Bishops and Synods of Quebec and Montreal appoint the members of the Corporation who control the Administration of the College. The village of Lennoxville is in the Eastern Townships

of the Province of Quebec, 100 miles from Montreal and 125 from Quebec.

TERMS, 1913–14. Michaelmas term begins Sept. 20, 1913, ends Dec. 20; Lent begins Jan. 10, 1914, ends March 31; Trinity begins April 1, ends June 18.

FACULTIES. Arts and Divinity. The Faculty of Medicine is at present fused with that of McGill, an agreement having been made with that Univ. not to teach Medicine or confer Med. Degrees within the Province of Quebec for 15 yrs. from 1905. The Faculty of Law is at present in abeyance. Examns. are conducted for Degrees in Music.

DEGREES, &c. B.A., M.A., B.D., D.D., LL.B., LL.D., D.C.L. (Hon.), Mus.B., Mus.D., Lic. in Sacred. Theol.

The courses for the Bachelorship extend over 3 yrs. Regular attendance at chapel and lectures is required of all students. Those who are not members of the Church of England may obtain exemption from attendance at chapel on guarantee by parents of regular attendance on Sundays elsewhere. Residence in the Coll. or with parents or guardians in the neighbourhood is necessary. Divinity is a compulsory subject in each year. The course for the L.S.T. extends over 2 yrs. and is open to grads. in Arts and to approved candidates for Holy Orders. The time employed by any student in teaching with approval of the Coll. Council may be counted for residence for not more than 3 terms, subject to passing examns. and payment of fees. Teachers holding Montreal Normal School, Academy, or McGill Model School Diploma may similarly count not more than 6 terms. Terms kept in other Univs. may be counted up to 6. Clergymen of the Dioceses of Quebec and Montreal may proceed to the B.A. on a reduced period of residence.

RESIDENTIAL FACILITIES. Men are required to reside in the Arts building or Divinity House (which provide accommodation for 65) unless their homes are in the neighbourhood of the Coll.

WOMEN are admitted to lectures and degrees and attend the same classes as men.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. $32,500 subscribed to the Diamond Jubilee Endowment Fund for the more modern subjects of education; $5000 bequest and $12,500 Govt. grant to same fund; annual Govt. grant was increased to $2500.

SPECIAL EVENTS. The Diamond Jubilee was celebrated on June 18 and 19, 1913. There were visits and addresses during the year from the Rt. Hon. Viscount Milner and Sir Wilfrid Laurier.

NUMBER OF STUDENTS. In B.A. courses, 42 (including 8 women); L.S.T., 15; post-grad. Div. and Philos., 1; graduates continuing study in Europe, 4—in Canada, 3—in the U.S.A., 2.

HONORARY DEGREES. *D.D.*—The Lord Bishop of Nova Scotia (C. L. Worrell). *D.C.L.*—Hon. Sir Lomer Gouin, K.C.M.G., Premier of Quebec; Hon. Sir C. P. Davidson, Chief Justice of the Superior Court; Hon. W. W. Lynch, Judge of the Superior Court; W. Peterson, C.M.G., Principal, McGill Univ.; A. C. Boyce, M.P., K.C., Chancellor, Diocese of Algoma; W. Morris, K.C., Chairman of Trustees; Lansing Lewis, Montreal; Rural Dean Stevens.

One *ad eundem* Mus.Doc. degree was conferred.

OTHER DEGREES, &C., CONFERRED IN 1912. B.A., 11; M.A., 6; L.S.T., 8.

CHANGES IN REGULATIONS. The course in Arts has been reduced to 3 yrs., and in Divinity (L.S.T.) to 2; length of Session increased so as to last from third Sat. in Sept. to third Thurs. in June.

PUBLICATIONS. *Calendar*, pubd. in April; *Historical Sketch of the Univ.*, by the Principal.

ADDITIONS TO LIBRARY. A gift of over 300 vols., chiefly Theol.; 200 vols. purchased.

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UNIVERSITY OF BOMBAY

[Established and incorporated by Act XXII of 1857 of the Leg. Council of India. Constitution modified by Act VIII of 1904.]

CHANCELLOR	H.E. THE GOVERNOR.
VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE*	Hon. Mr. Justice J. J. HEATON, I.C.S.
REGISTRAR	KHAN BAHADUR FARDUNJI M. DASTUR, M.A.
DEANS OF FACULTIES :	
Arts	Sir RAMKRISHNA G. BHANDARKAR, K.C.I.E., M.A., Ph.D., LL.D.
Law	Hon. Sir PHEROZESHAH M. MEHTA, K.C.I.E., M.A.
Medicine	Sir TEMULJI B. NARIMAN, Kt., L.M.
Engineering	Hon. Mr. F. L. SPROTT.

GENERAL INFORMATION

The Univ. has at present no teaching staff. Candidates for degrees pursue courses of instruction in affiliated Colls. (*v.* list below and Appendix V). Proposals are before the Governing Body of the Univ. for the inauguration of courses of post-grad. lectures and for the employment of Univ. Lecturers, Readers, and Professors. The Syndicate provides for the inspection of every affiliated Coll. at least once in 3 yrs.

FACULTIES. Arts, Law, Medicine, Engineering.

UNIV. TERMS, 1914. First term in Arts and Law, Jan. 3 and 5 to April 15 and 20 ; in Med., Nov. 15 to April 30 ; in Engin.—for Engin. students, Nov. 17 to April 20 ; for Agric. students, June 1 to Aug. 31. The second term in Arts, Law, and Med., June 10, 8, and 15 to Sept. 30, 21, and 30 ; for Engin. students, June 8 to Sept. 21 ; for Agric. students, Sept. 15 to Jan. 22, 1915.

DEGREES. Arts—B.A., M.A. ; B.Sc., M.Sc. ; B.Com. Law—LL.B., LL.M. Medicine—L.M. and S., M.B., B.S. ; B.Hy., M.D. (in Med. and Midwifery), D.Hy. ; M.S. Engineering—B.Ag. ; B.E. (Civ., Mech., or Elec.) ; M.C.E.

ARTS. The courses were revised in 1910 so as to approximate them to the courses in Europe. The min. age for Matricn. is 16.

* The executive governing body of the Univ., *v.* Appendix V.

From Matricn. a 1 yr.'s course leads to the optional previous examn. Specialization in Arts, Science, or Commerce begins with the 2nd yr. The Interm. examn. in Arts (to be first held under the new regns. in Nov. 1914) is taken at the end of the 2nd yr., the subjects being Engl.; second Lang.; Indian Hist. and Administration; Maths. or Logic. A further 2 yrs. course leads to the B.A. examn. in Engl. Lang. and Lit., with composition, and 1 of the following: Langs., Maths., Hist. and Econ., Ment. and Mor. Philos., Physics and Chem., Bot. and Zool. Additional papers are set for Honours. Two years after passing the B.A. the M.A. may be taken in Langs., Hist., Philos. or Maths.

Candidates for the B.Sc. take the Interm. examn. in Science (in 1 of 4 groups) 2 yrs. after Matricn., and the B.Sc. examn. 2 yrs. later. A B.A. may appear for the B.Sc. without passing the Interm. if he took one of the B.A. Science groups, and has, since passing the B.A., kept 4 terms (2 yrs.) in a Coll. recognized in Science. If the same optional group in which he passed the B.A. examn. is taken again for the B.Sc. 1 yr.'s study after passing the B.A. will suffice. The B.Sc. optional groups are Chem. and either Phys. or Bot. or Geol.; Maths. and Phys.; Bot. and either Zool. or Geol.; Geol. and Zool. One subject in whatever group is selected is taken as a principal and the other as a subsidiary subject. Honours may be obtained by getting high marks in the principal subject. The M.Sc. may be taken 2 yrs. after the B.Sc. in 1 of the following branches: Maths., Phys., Chem., Bot., Zool., Geol.

Candidates for the *B.Com.* take the Interm. in Commerce 2 yrs. after Matricn., the subjects being—Engl.; Pol. Econ.; Mercantile Law and Practice; Accountancy. A further 2 yrs. course leads to the B.Com. examn. in Engl.; Econ. Hist. and Geog.; Banking Law and Practice; Organization of Industry and Commerce; and 1 of 3 optional groups. A Govt. Coll. will be opened shortly wherein instruction in Comml. subjects will be given.

Law. The course for the LL.B. extends over 2 yrs. subsequent to graduation in Arts or Science. Two years after passing the 2nd LL.B. or an equivalent examn. of another Univ., the LL.M. examn. may be taken.

Medicine. The course for the M.B., B.S. covers 5 yrs. of professional study at a recognized Med. Coll., beginning a year after Matricn. The 1st or Prelim. Scientific examn. is taken at the end of the 1st yr. of professional study, the 2nd or Interm. 2 yrs. later, and the 3rd or Final at the end of the 5th yr. Candidates for the M.D. (in Med. and Midwifery) must have been engaged, after passing the M.B.B.S. or equivalent examn., in medical practice for 5 yrs. continuously and in special study for 1 yr. at a hospl., or in Med. practice for 3 yrs., of which 2 have (or, if he took Honours at the M.B.B.S., 1 yr. has) been passed in study at a recognized hospl. The requirements for the M.S. are parallel to those for the M.D. in Med. and Midwifery.

The B.Hy. may be taken 1 yr. later or a year after taking the M.B., B.S.

of another recognized Univ. The candidate must have attended courses of practical Lab. instruction for 6 mos. and studied practically the duties of Pub. Health administration for 6 mos. and attended during 3 mos. a contagious diseases hospl. The D.Hy. may be taken 2 yrs. after the B.Hy. Practical work under, or as, Health Officer for 1 yr. is required.

Engineering. The course for the B.Ag. or for the B.E. (Civ., Mech., or Elec.) covers 3 yrs., beginning 1 yr. after Matricn. The Engin. course divides into its 3 branches after the 1st yr. A candidate for the examn. for the M.C.E. must have obtained the degree at least of B.A. or B.Sc. and practised as a Civ. Engineer for 3 yrs. after obtaining the degree of licentiate of Civ. Eng. or its equivalent.

Scholarships for Graduates. Bhugwandass Purshotumdass, Rs.514 p.a., for one year, awarded to the highest in Sanskrit at the M.A. examn.; Sir Mangaldas Nathubhai, Rs.1000 p.a., for 3 years (every 3rd yr.), to the highest at the LL.B. examn.; Mangaldass Nathubhai Travelling Fellowship, Rs.700 p.a., 3 yrs., for Hindu grads. of not more than 5 yrs. standing; Govt. of India Scholarship, £200 p.a., 3 yrs. at Ox. or Camb., to be awarded in 1916 and 1918 to a native of India grad. of Bombay; Sir Mangaldas Nathubhai, Rs.1820 p.a., 3 yrs., for Hindus, tenable in England for technical educn.—2 every year and an additional one every 3rd yr.; there are also several of smaller value. Lectureships: Wilson Philological, Rs.750 (6 cold-weather lectures); Pandit Bhagranlal Indraji Lectureship (occasional), Rs.1000 (6 lectures on Ind. Epig., Antiq., or Archæol.).

Residential Facilities. The Regns. require that every Coll. shall provide quarters for such a percentage of its students as the Syndicate may from time to time approve. Students who do not live in Coll. quarters or with parents or guardians must live in lodgings known to and approved by the Coll. authorities.

Univ. Library (established in 1864 by means of the Premchund Roychund benefactions, amounting to Rs.4,00,000) contains about 8000 vols., including the Fawcett Collection of works on Pol. Econ. especially in connexion with India. (Librarian—R. V. Sabnis.)

Publications. The *Calendar*, issued in Nov., Vol. I, price Rs.3, contains Acts and Regns., names of Univ. officials and grads., examn. results, particulars of endowments and benefactions, annual convocation, minutes of Senate meetings, affild. institns., textbooks prescribed and recommended; Vol. II, Rs.2, contains examn. papers.

THE YEAR 1912–13

Benefactions Received and Fresh Sources of Revenue. A recurring grant of Rs.45,000 and non-recurring grants amounting to Rs.5,00,000 from the Govt. of India; a "Selby" Scholarship for proficiency in Logic at the Interm. Arts examn.

New Departments and Posts. A degree in Commerce has been instituted, and a Coll. (to be maintained partly from private endowments and partly from public funds) wherein instruction in Comml. subjects will be given is to be opened by Govt.

Proposals have been formulated for applying the grant of Rs.45,000 p.a. above mentioned as follows: Appointment for 1 yr. of an expert adviser (Sir Alfred Hopkinson, K.C., lately Vice-Chancellor of Manc.), his work to furnish guidance in the future inspection of Colls.; annual series of lectures by lectrs. from British Univs. on subjects connected with post-grad. courses, to set the standard of research and scholarship; appointment of a Univ. Prof. for Econ. or such-like subject with special reference to Indian conditions; institution of Inter-Coll. Lectures on M.A. courses, including Langs., Hist., Philos., and Maths.; enlargement of Univ. Library and its management by a trained librarian, to be sent to Europe or America for special training.

Number of Students. Full-time students preparing for the Bachelor's degree in the affiliated Colls., 5225; Bachelors preparing for the M.A., 113. Univ. research scholars, 1 at Ind. Inst. of Science, Bangalore (*v.* Appendix V); 1 at Clarke Lab., School of Art, Bombay; 7 Sir Mangaldas Nathubhai scholars are engaged in England in the study of such subjects as Engin., Bacteriology, Dairying, Mining, Agric.; 2 Govt. of India scholars from Bom. are studying at Camb. The number of candidates who appeared at the Matricn. examn. in 1911 (held at 5 centres) was 4019, of whom 2025 passed.

Degrees Conferred, 1912. M.A., 58 (including 1 woman); B.A., 431 (7 women); B.Sc., 25; LL.M., 2; LL.B., 101; M.D., 1; M.B., B.S., 3; L.M. and S., 24 (2 women); B.E., 8; L.C.E., 19; B.Ag., 22.

New Buildings. It is proposed to apply part of the non-recurring grants above mentioned to the addition of new buildings for post-grad. lectures, committee meetings, and Univ. office.

Hostel accommodation of the affiliated Colls. is being largely increased. Wilson (Bom.), Samaldas (Bhavnagar), and the Agric. Coll., Poona, have all opened new hostels.

AFFILIATED COLLEGES

There are Colls. recognized in Degree courses at Ahmedabad, Baroda, Bhavnagar, Bombay, Junagadh, Karachi, Poona.

Ahmedabad, *Gujarat College*. Recognized in the B.A. courses. Number of students in the B.A. classes, 87. Principal, and Prof. of *Engl. Lit.*—W. G. Robertson, M.A., B.D. Aberd.

Baroda, *State College*. Recognized in Arts. Number of students n M.A. class, 4; B.Sc. class, 3; B.A. classes, 94 (including 2 women).

Principal, and Prof. of *Eng. Lit.*—A. B. Clarke, B.A. Camb. Other Professors : *Biol.*—Mancherji Kavasji Kanga, M.A., B.Sc., L.M. and S. *Chem.*—Nadir Adarji Masani, M.A., B.Sc. *Hist. and Pol. Econ.*—Pandurang Bhikaji Naik, M.A. *Logic and Mor. Philos.*—A. K. Trivedi, M.A., LL.B. *Maths.*—Gajanan Ganesh Pendse, B.A. *Pers.*—Syed Nawab Ali, M.A. Calc. *Phys.*—S. G. Burrow, B.Sc. Lond. *Sansk.*—Bhasker Ramchandra Arte, M.A. 4 other Lectrs. and Asst. Profs.

BHAVNAGAR, *Samaldas State College.* Recognized in the B.A. courses. Number of students in B.A. classes, 31. There are also 4 M.A. students. Principal, and Prof. of *Maths. and Nat. Philos.*—Kavasji Jamshadji Sanjana, M.A.

BOMBAY, *Elphinstone College.* Recognized in Arts. Number of students in M.A. class, 13 ; B.A. classes, 108 (including 7 women) ; B.Sc. class, 4. Principal, and Prof. of *Engl. Lit.*—A. L. Covernton, M.A. Ox. Other Professors : *Engl. and Hist.*—C. Anderson, M.A. Ox. *Engl.*—C. J. Sisson, M.A. Edin. *Hist. and Pol. Econ.*—O. V. Muller, M.A. Camb. *Logic and Mor. Philos.*—R. Marrs, M.A. Ox. *Maths.*—D. D. Kapadia, M.A., B.Sc. *Pers. and Arabic*—Shaikh Mahomed Isfahani. *Sansk.*—Shridhar Ramkrishna Bhandarkar, M.A. 9 other Lectrs. and Asst. Teachers, 2 Demrs.

BOMBAY, *Wilson College* (United Free Church of Scotland). Recognized in Arts. Number of students—M.A. class, 32 (including 1 woman) ; M.Sc. class, 1 ; B.Sc. class, 13 (including 1 woman) ; B.A. classes, 253 (including 5 women). Principal, and Prof. of *Phys.*—D. Mackichan, M.A., D.D., LL.D. Glas. Other Professors : *Biol.*—Vinayak Nanabhai Hate, B.Sc. *Chem.*—A. R. Normand, M.A., B.Sc. Edin. *Engl. Lit.*—R. Scott, M.A., D.D. Aberd. ; J. McKenzie, M.A. Aberd. *French*—L. Peltier, B.A., B.Sc. Paris. *Hist. and Latin*—R. Strachan, M.A., B.D. Aberd. *Logic and Pol. Econ.*—R. MacOmish, M.A., B.D. Glas. *Maths.*—J. McLean, M.A., B.Sc. Aberd. *Mor. Philos.*—J. R. Cuthbert, M.A. Edin. *Pers.*—M. Ahmed, M.A. Calc. *Sansk.*—Hari Mahader Bhadkamkar, B.A. 4 Asst. Profs., 2 Demrs.

BOMBAY, *St. Xavier's College* (S.J.). Recognized in Arts. Number of students—M.A. class, 31 ; M.Sc. class, 1 ; B.A. classes, 161 ; B.Sc. class, 7. Principal, and Prof. of *Chem.*—H. Sierp. Other Professors : *Biol.*—J. Assmuth. *Engl. Lit.*—J. Devine ; A. Rembold ; J. Steinmetz. *French*—V. Hommel. *Hist. and Pol. Econ.*—C. Flink. *Hist.*—A. Vaeth. *Latin*—A. Ailinger ; E. Usteri. *Logic and Hist.*—A. X. Soares, M.A., LL.B. *Maths.*—J. Degen. *Pers. and Arabic*—Maulvi Muhammad Abbas, M.A., M.F. Panj. *Phys.*—A. Steichen. *Sansk. and Ind. Hist.*—A. Hegglin. 6 Asst. Profs.

BOMBAY, *Government Law School.* Recognized in Law. Number of students in LL.B. classes, 467. Principal, and Perry Prof. of *Jurisp.*—Mirza Ali Akbar Khan, B.A., Bar.-at-Law. Other Professors—

R. K. Tarachand, B.A., Bar.-at-Law; Ramdutt W. Desai, B.A., LL.B.; Ganpatrao G. Nadkarni, B.A., LL.B., Advocate; K. McI. Kemp, Bar.-at-Law; Kaikobad B. Dastur, B.A., LL.B., Bar.-at-Law.

BOMBAY, *Grant Government Medical College.* Recognized in Med. and in B.Sc. courses. Number of students in L.M. and S. classes, 79; M.B., B.S. classes, 401. Principal, and Prof. of *Surgery*—Lt.-Col. A. Street, M.B. Camb., F.R.C.S., I.M.S. Other Professors: *Anat.*—Major T. S. Novis, F.R.C.S., I.M.S.; Yashavant Govind Nadgir, L.M. and S., M.S. *Bact.*—N. F. Surveyor, M.A., B.Sc., M.D. Bom., M.R.C.P. Lond., D.P.H. Camb. *Biol. and Med. Jurisp.*—S. A. Powell, B.A., M.B., M.Ch. *Chem.*—Major W. H. Dickinson, M.B., B.Ch. Edin., I.M.S. *Mat. Med. and Pharmacy*—Capt. A. J. V. Betts, M.B. Lond., I.M.S. *Med., Therap., and Clin. Med.*—Lt.-Col. L. F. Childe, M.B., I.M.S. *Midw. and Dis. of Women and Children*—Major S. C. Evans, M.B., C.M., I.M.S. *Ophth.*—Major P. P. Kilkelly, M.B., B.Ch., I.M.S. *Pathology*—Major E. F. G. Tucker, I.M.S. *Physics*—J. A. D'Souza, B.A., L.M. and S. *Physiol., Histol., and Hygiene*—Major L. T. R. Hutchinson, M.A., M.D., B.C. Camb., D.P.H., I.M.S.

BOMBAY, *Cama and Allbless Hospitals.* Recognized in Midwifery courses for the M.D. examn. First Physician—Miss A. M. Benson, M.D. Lond.

BOMBAY, *Prof. Gajjar's Techno-Chemical Laboratory.* Recognized in Chem. course for the M.A. examn. Director (and Proprietor)—T. K. Gajjar, M.A., B.Sc. Professor—M. J. Gajjar, M.A. 3 Assts.

BOMBAY, *Municipal Laboratory.* Recognized in courses of Pract. Instr. in Chem. for the B.Hy. examn.

JUNAGADH, *Bahauddin College.* Recognized in Arts. Number of students in M.A. class, 11; in B.A. classes, 40. Principal, and Prof. of *Engl. Lang. and Lit.*—J. Scott, M.A. Glas., Bar.-at-Law. Other Professors: *Engl., Hist., and Pol. Econ.*—Shapurshah Hormusji Hodivala, M.A. *French*—C. F. Saldanha, M.A. *Logic and Mor. Philos.*—Harilal Madhavji Bhatt, M.A. *Maths.*—Narayan Balwant Pendse, M.A., LL.B. *Pers.*—Abdus Samad Shah. *Sansk.*—Mahadev Malhar Joshi, M.A. *Science*—Vasudev Sadashiv Ghurye, M.A. 1 Lectr.

KARACHI, *Dayaram Jethmal Sind College.* Recognized in Arts. Number of students in M.A. class, 3; B.A. classes, 62. Principal, and Prof. of *Hist. and Pol. Econ.*—H. P. Farrell, M.A. Ox. Other Professors: *Biol. and Engl.*—F. Ludlow, B.A. Camb., Vice-Principal. *Engin.*—Motiram Hassamal Advani, L.C.E. *Engl.*—Sahibsing Chandasing Shahani, M.A. *Logic, Mor. Philos., and Ind. Hist.*—Atmaram Dhondo Dhopeshwarkar, M.A., LL.B. *Maths.*—Rao Saheb Bhimbai Jivanji Naik, M.A. *Pers.*—Hotchand Mulchand Gurbaxani, M.A. *Phys. and Chem.*—Suratram Balchand Butani, M.A., B.Sc. *Sansk.*—Hari Laxman Lagu, B.A. 5 other Teachers.

POONA, *Deccan Government College.* Recognized in Arts. Number of students in M.A. class, 6; B.A. classes, 89. Principal and Prof. of *Hist. and Pol. Econ.*—F. W. Bain, M.A. Ox. Other Professors: *Engl.*—H. G. D. Turnbull, B.A. Ox.; H. G. Rawlinson, M.A. Camb. *Logic*—Shankar Gopal Sathe, M.A. *Maths.*—A. C. L. Wilkinson, M.A. Camb. *Sansk.*—Vinayak Sakharam Ghate, M.A. 4 other Lectrs.

POONA, *Fergusson College.* Recognized in Arts. Under the control of the Deccan Educn. Soc. Number of students—M.A. class, 13; B.Sc. class, 3; B.A. classes, 272 (including 3 women). Principal, and Prof. of *Maths.*—Hon. Mr. Ragunath Purushottam Paranjpye, B.Sc. Bom., M.A. Camb. Other Professors: *Bot. and Zool.*—Dhundiraj Laxman Dixit, B.A. *Chem.*—Gopal Balkrishna Kolhatkar, M.A. *Engl. and Sansk.*—Vaijanath Kashinath Rajvade, M.A.; Krishnaji Nilkanth Dravid, M.A.; Pandurang Damodar Gune, M.A. Bom., Ph.D. Leip. *Engl.*—Vasudeo Balvant Patwardhan, B.A. Calc.; Gopal Vishnu Tulpule, M.A. *Hist. and Pol. Econ.*—Vaman Govind Kale, M.A. *Hist.*—Hari Govind Limaye, M.A. *Logic and Mor. Philos.*—Govind Chimnaji Bhate, M.A. *Maths.*—Dhondo Keshav Karve, B.A.; Vishvanath Balvant Naik, M.A. *Pali.*—Dharmanand Kaushambi. *Pers.*—Mahomedkhan Munshi. *Phys.*—Keshav Ramchandra Kanitkar, M.A., B.Sc. *Phys. and Chem.*—Mahadev Ramchandra Paranjpe, M.A., B.Sc. *Sansk.*—Narayan Sakharam Panse, B.A. 5 Asst. Profs. and Lectrs., 6 Demrs.

POONA, *Government College of Engineering.* Recognized by the Univ. of Bombay in Engin. and in B.Sc. courses. Number of students in B.E. class, 47. Principal, and Prof. of *Phys. and Elec. Engin.*—H. N. Allen, B.Sc. Lond., Ph.D. Nebraska. Other Professors: *Chem.*—C. J. J. Fox, B.Sc. Lond., Ph.D. *Civil Engin.*—K. S. Framji, B.A. Mad., L.C.E. Bom. *Engin.*—R. S. C. Brown, B.Sc. N.Z., A.M.I.C.E. *Geol.*—A. M. Heron, B.Sc., F.G.S., A.I.C.E. *Maths.*—B. D. Audich, M.A. *Mech. Engin.*—N. B. Macmillan, B.Sc. Glas.

POONA, *Government Agricultural College.* Recognized in B.Ag. courses. Number of students in B.Ag. classes, 21. Principal, and Prof. of *Chem.*—H. H. Mann, D.Sc. Leeds, M.Sc. Manc., F.I.C., F.L.S. Other Professors: *Agric.*—J. B. Knight, M.Sc. Mass. *Bot.*—W. Burns, B.Sc. Edin. Asst. Profs., Lectrs. and Demrs., 12.

UNIVERSITY OF BRISTOL

[Incorporated by Royal Charter dated May 24, 1909. University College, Bristol (incorporated in 1876), was at the same time dissolved.]

VISITOR	*H.M. THE KING.
CHANCELLOR	Rt. Hon. VISCOUNT HALDANE OF CLOAN, K.T., P.C., D.C.L., LL.D., F.R.S. (*ex-officio* President of the Court, Council, and Convocation).
PRO-CHANCELLORS	Rt. Rev. LORD BISHOP OF HEREFORD, D.D., LL.D. Rt. Hon. LEWIS FRY, LL.D. Rt. Hon. HENRY HOBHOUSE, M.A., LL.D. GEORGE ALFRED WILLS, LL.D., J.P.
VICE-CHANCELLOR	Sir ISAMBARD OWEN, D.C.L., LL.D., M.D. (*ex-officio* Chairman of Senate).
TREASURER	G. A. WILLS, LL.D., J.P.
REGISTRAR	JAMES RAFTER, M.A.
DIRECTOR OF TRAINING COLLEGES	E. H. COOK, D.Sc., J.P.
TUTOR TO THE WOMEN STUDENTS AND WARDEN OF THE UNIV. HALL OF RESIDENCE FOR WOMEN	MAY C. STAVELEY, M.A.
LIBRARIAN	E. SIBREE, M.A.
MEDICAL LIBRARIAN	C. KING RUDGE, M.R.C.S., L.R.C.P.

ASSOCIATED INSTITUTIONS

(Ordinance XVI provides for the association with the Univ. of institutions in which specialized teaching is given or facilities for research are afforded.)

(1) ROYAL AGRICULTURAL COLLEGE, CIRENCESTER. *Principal*—Prof. J. R. Ainsworth Davis, M.A.

(2) Bristol Baptist College. *Principal*—W. J. Henderson, LL.D., B.A.

(3) Western College, Bristol. *Principal*—R. S. Franks, M.A., B.Litt.

(4) National Fruit and Cider Institute, Long Ashton (*v. infra*, Research). *Director*—Prof. B. T. P. Barker, M.A.

N.B. Certain members of the Teaching Staffs of (2) and (3), the Director of (4), and all teachers in certain subjects of (1) are members of the Teaching Staff of the Univ. All such teachers are in the following list distinguished by the letter (a). Certain other teachers not appointed by the Univ., but recognized as qualified to give instruction to undergraduates studying for degrees, are marked (R). Clinical Lecturers are marked (C).

PROFESSORS, LECTURERS, ETC.

AGRICULTURE [Prof.
TURNER, D., M.S.E.A.C., P.A.S.I.
Agric. Biology
BARKER, B. T. P., M.A. Prof. (a).
Teachers in the Royal Agric. Coll.
KINCH, E., F.I.C., F.C.S. (a) *Chem.*
PRITCHARD, H. A., F.S.I. (a) *Estate Management and Forestry.*
SAUNDERS, C. B., B.SC. (a) *Nat. Hist.*
THAIN, W. A., A.M.I.C.E. (a) *Land Surveying.*
DUNCAN, A. C., F.R.C.V.S. (a) *Vet. Sc.*

ANATOMY
FAWCETT, E, M.D., C.M. Prof.
FISHER, A. G. T., M.B., M.R.C.S., L.R.C.P. Demr.
STOCK, W. S. V., M.B., F.R.C.S. Demr. in *A.* and in *Obstetrics.*

ART [Spl. Lectr.
CRANAGE, D. H. S., D.LITT.
PEARTREE, S. M. Spl. Lectr.

BIOLOGY, v. *Agric. and Nat. Hist.*

BIOCHEMISTRY, v. *Chem.*

BOTANY [*Lectr.
DARBISHIRE, O. V., B.A., PH.D.
LEE, EVA M., M.SC. Asst. Lectr.
HUNTER, C., M.SC. Demr.
Botany, Systematic
WHITE, J. W. Spl. Lectr.

CHEMISTRY (v. also *Agric.*)
FRANCIS, F., D.SC., PH.D., F.I.C. Alf. Capper Pass Prof.
DAVIS, O. C. M., D.SC., F.I.C. Lectr.
RIXON, F. W., M.SC., PH.D. Lectr.
Applied Chemistry [Prof.
WERTHEIMER, J., B.A., D.SC., F.I.C.
BORLAND, H. A. M., A.R.C.S. Lectr.
Biochemistry
NIERENSTEIN, M., PH.D. Lectr.
Hygienic Chemistry
RUSSELL, E., B.SC., F.I.C. Lectr.
Physical Chemistry
MC BAIN, J. W., M.A., PH.D. Lectr.

CLASSICS
BROOKS, F., M.A. Prof.
PITMAN, H., M.A. Lectr.

DENTAL SURGERY
ACKLAND, W. R., M.R.C.S., M.D.S. *Lectr. and (C).
WYATT, H. J., L.D.S. (C).
NICHOLS, F. C., M.B., L.D.S. (C).
Dent. Mechanics
HAYMAN, C. A., M.D., L.D.S. *Lectr.

* Head of Dept.

Operative Dent. Surg.
DOWLING, E. A. G., M.R.C.S., L.R.C.P., L.D.S. *Lectr. and (C).
Surg. for Dent. Students [Lectr.
GROVES, E. W. H., M.D., M.S., F.R.C.S.

ECONOMICS
ANSTEY, P. L., B.SC. *Lectr.

EDUCATION [*Lectr.
HODGSON, GERALDINE E., LITT.D.
PEASE, MARIAN F., LL.D. Spl. Lectr.
FOSTER, T. S., M.A. Spl. Lectr.
LIVINGSTON, KATE, M.A. Asst. Lectr.

Elem. Training Depts.
COOK, E. H., D.SC., J.P. Director.
MULLOCK, AMY, M.SC. *Mistress of Method (for women).
FOSTER, T. S., M.A. *Master of Method (for men).
GREENALL, C. E., B.SC. Asst. Lectr.
CHILDS, E., M.A. Asst. Lectr.
ODELL, D. A. Asst. Lectr.
GALLOP, BEATRICE Asst. Lectr.
HILTON, N., M.A. Asst. Lectr.
MAY, DAISY Asst. Lectr.
ORGANE, FLORENCE S. Demr.
WATSON, A. J., A.R.C.A. *Drawing* (R).
SHELDON, W. A. *Drawing* (men) (R).
WARRELL, A., F.R.C.O. *Music* (R).
REA, C. P. *Phys. Exerc.* (men) (R).
JOHNSON, THEODORA *Phys. Exerc.* (women) (R).

ENGINEERING (v. also *Milit.*)
Automobile Engineering
MORGAN, W., B.SC. Prof.
Civil Engineering
FERRIER, R. M., M.SC., M.I.C.E., M.I.M.E. Prof.
BROADBENT, F. J., B.SC. Lectr.
Electrical Engineering
ROBERTSON, D., D.SC. Prof.
WILLIAMS, O. J., B.SC. Lectr.
Mech. and Mining Engin.
MUNRO, J., M.SC., M.I.M.E., A.R.C.S. Prof.
WATSON, F. R. B., B.SC. Lectr. (*Mech. E.*).
Teachers for Faculty of Engin.
BAKER, J. W. *Drawing, &c.* (R).
RAGGETT, A. E. *Engineering* (R).
FISHER, A. *Mining* (R).
BRITTON, G. *Steel Structures* (R).
TIPTON, F. N. *Telegraphy* (R).
MORGAN, C. E. *Telephony* (R).
PARNELL, T. P. O'C. *Telegraphy and Telephony* (R).
COCKSHOTT, W. J., A.M.I.E.E. *Telegraphy and Telephony* (R).

FORESTRY, v. *Agric.*

GEOLOGY [Chaning Wills Prof.
REYNOLDS, S. H., M.A., SC.D.
INNES, D. E. I., B.SC. Asst. Lectr.
(v. also *Palæontology*)

HISTORY, Modern [Prof.
LEONARD, G. H., M.A. H. O. Wills
STAVELEY, MAY C., M.A. Lectr.
SOLTAU, R. H., M.A. Lectr.
COOPER, W. L., B.A. Asst. Lectr.
(v. also *Milit. Hist.*)

LANGUAGES and Lit. (v. also *Classics*)
Arabic
SEGALL, J. Spl. Lectr.
Aramaic and Syriac [Lectr.
O'LEARY, DE L., M.A., D.D. Spl.
English [Winterstoke Prof.
SKEMP, A. R., M.A., PH.D.
MOORE, J. L., B.A., PH.D. Lectr.
COOPER, W. L., B.A. Asst. Lectr.
French
BOILLOT, F., L.-ÈS-L. *Lectr.
French and German
PERKINS, B. M. NEVILL, M.A., B.-ÈS-L. Asst. Lectr.
French for Engin. Students
DIRAC, C. A. L., B.-ÈS-L. (R).
German
ORD, C., M.A. *Lectr.

* Head of Dept.

German for Engin. Students
HENNIG, C. C., M.A. (R).
Greek [Prof.
DOBSON, J. F., M.A. H. O. Wills
Hebrew
POLACK, J., B.A. Spl. Lectr.
Italian
GUALTIERI, SIGNORINA E. *Lectr.
Japanese
DICKENS, F. V., C.B. Reader.
Oriental Languages
SIBREE, E., M.A. *Lectr.
Syriac, v. *Aramaic*

LAW (v. also *Med.—For., Milit.*)
WILSHERE, A. M., M.A., LL.B. Spl. Lectr.
CHILTON, C. A. Spl. Lectr.
International Law
LAWRENCE, T. J., M.A., LL.D. Reader.

LOGIC
TANNER, W. E., M.A. *Lectr.

MATHEMATICS [Prof.
BARRELL, F.R., M.A., B.SC. H.O.Wills
HARVEY, E. B., M.SC. Asst. Lectr.
Applied Mathematics
BOULTON, E. S., M.A., B.SC. Prof.
VEITCH, A. G., B.A. Lectr.
Pure Mathematics
FRASER, P., M.A., B.SC. Lectr.
Maths. for Engin. Students
PICKERING, A., B.SC. (R).
PANTER, H., B.SC. (R).
SMITH, A., B.SC. (R).
STOCKALL, G. E., B.SC. (R).

MEDICINE and Surgery (v. also *Pub. Health*)
Anæsthetics
FREEMAN, J., M.D., F.R.C.S. (C).
FLEMMING, A. L., M.B. (C).
HILL, HEDLEY, M.D. (C).
Bacteriology, v. *Pathology*
Diseases of the Skin
WILLS, W. K., M.A., M.B. (C).
Dis. of the Skin, and Med.
NIXON, J. A., B.A., M.B., F.R.C.P. (C).
Fevers
PETERS, B. A., M.D., D.P.H. (C).
Forensic Med. and Toxicol.
PARKER, G., M.A., M.D. (Clin. Lectr. in *Med.*) *Lectr.
DAVIS, O. C. M., D.SC., F.I.C. Demr.
Laryng., Rhin., and Otology.
WATSON-WILLIAMS, P., M.D. *Lectr. and (C).
FIRTH, J. L., M.D., M.S., F.R.C.S. (C) in Otology and *Surg.*
Laryng. and Rhinology
WRIGHT, A. J. M., M.B., F.R.C.S. (C).
Medicine
CLARKE, J. M., M.A., M.D., LL.D., F.R.C.P. Prof. and (C).
EDGEWORTH, F. J., M.D., D.SC. Prof. and (C).
PROWSE, A. B., M.D., F.R.C.S. (C).
PARKER, G., M.A., M.D. (C).
SYMES, J. O., M.D., D.P.H. (C).
NEILD, N., M.B. (C).
COOMBS, C. F., M.D. (C).
CHARLES, J. R., M.A., M.D., F.R.C.P. (C).
NIXON, J. A., B.A., M.B., F.R.C.P. (C).
FORTESCUE-BRICKDALE, J. M., M.A., M.D. (C).
Medicine and Surgery
BRASHER, C. W. J., M.D. (R).
PINNIGER, W. J. H., M.D. (R).
CHITTY, H., M.S., F.R.C.S. (R).
ROBERTSON, D., M.B. (R).
Mental Diseases
BLACHFORD, J. V., M.D. *Lectr.
Obstetrics (v. also *Anat.*)
SWAYNE, W. C., M.D. Prof. and (C).
RAYNER, D. C., F.R.C.S. Lectr. and (C).
STOCK, W. S.V., M.B., F.R.C.S. Demr.
NEWNHAM, W. H. C., M.A., M.B. (C).
Ophthalmology [*Lectr. and (C).
WALKER, C. H., B.A., M.B., F.R.C.S.
CROSS, F. R., LL.D., M.B., F.R.C.S. Spl. Lectr.

* Head of Dept.

OGILVY, A., M.D., F.R.C.S.I. (C).

Pathology

HALL, I. W., M.D. Prof.

Path. and Bacteriology

WILLIAMSON, G. S., L.R.C.P., L.R.C.S., L.F.P.S. Demr.

KAY-MOUAT, J. R., M.A., M.B. ,,

Pharmacology and Therap.

NEILD, N., M.B. *Lectr.

Pharmacy (Practical)

TAYLOR, A. L., M.P.S. (R).

THOMAS, W., M.P.S. (R).

Radio-Therapy

TAYLOR, J., M.R.C.S. Spl. Lectr.

JONES, J. ELLINGTON, M.R.C.S., L.R.C.P. (C).

PARKER, G., M.A., M.D. (C).

Skiagraphy

TAYLOR, J., M.R.C.S. (C).

BERGIN, F. G., M.R.C.S., L.R.C.P. (C).

Surgery

MORTON, C. A., F.R.C.S. Prof. and (C).

SWAIN, J., M.D., M.S., F.R.C.S. Prof. and (C).

FIRTH, J. L., M.D., M.S., F.R.C.S. (C).

CARWARDINE, T., M.B., M.S., F.R.C.S. (C).

MOLE, H. F., F.R.C.S. (C).

GROVES, E. W. H., M.D., M.S., F.R.C.S. (C).

STACK, E. H. E., M.B., F.R.C.S. (C).

WALTERS, C. F., F.R.C.S. (C).

MOORE, C. A., M.S., M.B., F.R.C.S. (C).

SHORT, A. R., M.D., F.R.C.S. (C).

Operative Surgery

BUSH, J. P., C.M.G., CH.M. *Lectr.

Practical Surg. [and (C).

LANSDOWN, R. G. P., M.D. *Lectr.

MILITARY SUBJECTS

M. Engineering

BRANDON, CAPT. O. G. Spl. Lectr.

M. History

BOYCE, CAPT. C. E. Spl. Lectr.

M. Law

CORFIELD, CAPT. C. Spl. Lectr.

M. Organization, &c.

RAWSON, CAPT. R. I. Spl. Lectr.

M. Science

CHRISTIE, MAJOR C. Spl. Lectr.

M. Tactics

WILSON, CAPT. R. H. G. Spl. Lectr.

MINING, v. *Engineering*

MUSIC (Harmony and Counter point)

BUCKNALL, C., MUS.BAC. Spl. Lectr.

NATURAL HISTORY (v. also *Agric.*)

AINSWORTH-DAVIS, J. R., M.A. Prof.

PALÆONTOLOGY

BOLTON, H., M.SC., F.R.S.E. Reader.

PHYSICS (v. also *Chem.* and *Elec.*)

VACANT H. O. Wills Prof.

TYNDALL, A. M., D.SC. *Lectr.

WILLIAMS, ILLTYD, M.SC. Lectr.

FRY, J. D., B.SC. Lectr. and Demr.

HODGSON, B., M.SC., PH.D. Asst. Lectr.

Teachers for Engineering Students

STANLEY, H., B.SC. (R).

WHITE, A. E., B.A., B.SC. (R).

SMITH, A., B.SC. (R).

STOCKALL, G. E., B.SC. (R).

PHYSIOLOGY [Prof.

KENT, A. F. S., M.A. H. O. Wills

BYWATERS, H. W., D.SC., PH.D., F.I.C. Demr.

SHORT, A. R., B.SC., M.D., B.S., F.R.C.S. Demr.

PSYCHOLOGY and Ethics

MORGAN, C. LLOYD, D.SC., LL.D., F.R.S. Prof.

PUBLIC HEALTH [*Lectr.

DAVIES, D. S., LL.D., M.D., D.P.H.

HEAVEN, J.C., M.R.C.S., D.P.H. Demr.

* Head of Dept.

FORTESCUE-BRICKDALE, J. M., M.A., M.D. Director of P.H. Lab.

THEOLOGICAL SUBJECTS

HENDERSON, W. J., B.A., LL.D. (a).
ROBINSON, F. E., B.A., B.D. (a).
FRANKS, R. S., M.A., B.LITT. (a).
MACEY, T. S., B.A. (a).

ZOOLOGY

HENDERSON, W. D., M.A., B.SC., PH.D. *Lectr.
BROCKINGTON, MARY, B.SC. Asst. Lectr.

CHANGES IN STAFF

Barke, H. F., Demr. in Hyg. Chem. (appointment abolished).
Bergin, F. G., apptd. Clinical Lectr. in Skiagraphy.
Berwick, W. E. H., Asst. Lectr. in Maths., resigned.
Boillot, F., apptd. Lectr. in French.*
Bush, J. P., Clinical Lectr. in Surg., resigned.
Christie, Major C., apptd. *vice* Loring.
Cooper, W. L., apptd. Asst. Lectr. in Engl. and Hist.
Cranage, D. H. S., apptd. Spl. Lectr. in Art.
Davis, O. C. M., Lectr. in Chem., apptd. also Demr. in For. Med. and Toxicol.
Eager, R., Lectr. in For. Med. and Toxicol.,* resigned.
Eaton, J. W., Asst. Lectr. in French and German, resigned.
Gallop, Beatrice, apptd. Asst. Lectr. in Educn. (Elem. Training).
Harvey, E. B., apptd. *vice* Berwick.
Hill, Hedley, apptd. Clinical Lectr. in Anæsthetics.
Hunter, C., apptd. Demr. in Botany.
Jowett, Lettice, Asst. Lectr. in Educn. (Elem. Training), resigned.
Kyle, H. G., Clinical Lectr. in Surg., resigned.
Lee, Catherine F., Asst. Lectr. in Educn. (Secondary Training), resigned.
Livingston, Kate, apptd. *vice* Lee.
Loring, Major W. L., Spl. Lectr. in Milit. Sc., resigned.
Moore, C. A., apptd. Clinical Lectr. in Surg.
Noakes, Kathleen, B.A., Asst. Lectr. in Educn. (Elem. Training), resigned.
Parker, G., apptd. Clinical Lectr. in Radio-Therapy.
Perkins, B. Nevill, apptd. *vice* Eaton.
Russell, E., apptd. *vice* Stoddart.
Short, A. R., apptd. Clinical Lectr. in Surg.
Stoddart, F. W., F.I.C., Lectr. in Hyg. Chem., resigned.
Taylor, J., apptd. Clinical Lectr. in Skiagraphy.
Williams, Harvey, M.A., Asst. Lectr. in Educn. (Elem. Training), resigned.
Wright, A. J. M., apptd. Clinical Lectr. in Laryng. and Rhinol.

* Head of Dept.

GENERAL INFORMATION

FACULTIES, &c. Arts, Science, Medicine (with a Dept. of Dentistry), Engineering. There is a Teachers' Training Board, to which Council and Senate have delegated powers in reference to training teachers for Elem. and Secondary Schools. An Agric. Research Committee directs the work of the Agric. and Hortic. Station at Long Ashton. The members of the last-mentioned Committee are appointed by the Board of Agric., the National Fruit and Cider Institute, and the Univ.

By an agreement made on June 24, 1910, in pursuance of certain provisions of the Charter, the Society of Merchant Venturers of Bristol undertook to provide and maintain in its Technical College the Faculty of Engineering in the Univ. The Depts. of Engin. are Civ., Mech., Elec., and Automobile.

MATRICULATION. Minimum age 16, or in the case of women, 17. Graduates of, and persons who have passed the Matricn. examn. of, any Univ. in the U.K. are eligible without further test; so also are persons who have passed certain Ox., Camb., and Scottish examns. Candidates educated outside the U.K. may be admitted on proof of having passed equivalent examns. or, in the case of candidates from Oriental countries, of previous educn. in their own countries and ability to follow instruction given in English.

TERMS. The academic year runs from Sept. 1 to Aug. 31. Terms 1913–14 begin: Autumn—Sept. 30 (Engin. 16th); Spring—Jan. 20 (Med. 13th, Engin. 16th); Summer—April 28 (Med. May 1, Engin. May 28).

DEGREES, &c. In Arts—B.A., M.A., D.Litt.; Science—B.Sc., M.Sc., D.Sc.; Law—LL.D. (Honorary); Med.—M.B., Ch.B., Ch.M., M.D.; B.D.S., M.D.S.; Engineering—B.Sc., M.Sc., D.Sc. *Diplomas* in Education, Dental Surgery (L.D.S.), Pub. Health (D.P.H.), Vet. State Med. (D.V.S.M.). *Certificates* in Engin. *Testamurs* in Social Study, in Journalism, and for Engineering Apprentices. The Statutes (sec. 24) declare that the period of study necessary to qualify for graduation shall not be less than 3 yrs., all of which shall be subsequent to passing the Matricn. examn. On an evening-class curriculum the minimum period is 5 yrs. in Engin., 6 in Arts or Science. For the B.D.S. the minimum is 5; for the M.B., Ch.B. 5½ yrs.

Candidates for the Bachelorship must have spent at least 2 yrs. in study or research in the Univ.

ARTS. The Intermediate examn. at the end of the 1st yr. is in 5 subjects, including Greek or Latin; a 2nd foreign lang.; either English Lang. and Lit. or English Hist.; Maths. or Logic. As an exception to this a candidate who takes Maths. and Engl. Hist. for the Interm. and Milit. Hist. and Strategy for the Final examn. need not take either Greek or Latin for the Interm., but may take instead any other lang.

taught in the Faculty. An alternative curriculum is also open to *Theological* students; Greek and Latin are compulsory, and a choice is given of any 3 of the following: Hebrew, Mod. Hist., Engl. Lit., Logic, Psychol., Economics. Instruction given in Theol. subjects in the Associated Colls. (2) and (3) to undergrads. of the Univ. by the Principal or the teachers mentioned above under the heading "Theol. Subjects" is for the purpose of the B.A. (Theological) degree deemed to be given in and by the Univ. The *Honours* Schools are: Class.; Mod. Langs. and Lit.; Engl. Lang. and Lit.; Hist.; Philos.; Econ.; Oriental Studies; Biblical Philol. and Archæol.; Pure Maths. A B.A. of at least 2 yrs. standing who graduated with honours or has since graduation satisfied the examiners in an honours examn. may present a dissertation for the M.A. degree, (*v. also* RESEARCH DEGREES). The D.Litt. may be conferred on a M.A. of not less than 4 yrs. standing who has submitted a contribution to the advancement of learning.

SCIENCE. Before taking the Final B.Sc. examn. a candidate must satisfy the Univ. of his ability to read scientific French and German. A candidate for Honours or who has qualified for Matricn. and attained the age of 17 may enter for the Interm. examn. without previous study in the Univ., and, if he passes, proceed at once to the final part of the course, which will in that case cover 3 yrs. An alternative curriculum is open to Agric. students. They pursue their final part (2nd and 3rd yrs.) in the Royal Agricultural College, Cirencester, instruction given in which to undergraduates of the Univ. in Agric., Forestry, Estate Management, Land Surveying, Vet. Sc., Nat. Hist., Agric. Chem., Zool., Bot., and Geol. is for the purpose of degrees in Agric. and Forestry deemed to be given in and by the Univ.

The M.Sc. degree may be conferred on any person who not less than 2 years (or, if he took Honours, 1 year) previously attained the B.Sc. in this Univ. or some other degree or diploma declared by the Senate to be at least equivalent thereto. A dissertation is required, which in the case of candidates who are not graduates of, must be based on work carried out in this Univ.

The D.Sc. degree may be conferred on (1) a M.Sc. of 3 yrs. standing who submits a sufficient contribution to the advancement of scientific knowledge; (2) a M.Sc. of this or any approved Univ. or a candidate declared to be of equivalent standing who has pursued original work in the Univ. during 2 yrs.; (3) a B.Sc. of 6 yrs. standing who has submitted published works of sufficient importance.

MEDICINE. Of the requisite 5½ or (for the B.D.S.) 5 yrs. of medical study, at least 3, including 2 yrs. subsequent to satisfying the Univ. in Anat. and Physiol., must be spent, and the Final examn. must be passed, in the Univ. Before admission to the Final examn. a candidate must have attended the Med. and Surg. practice of approved hospls. during 3 yrs., during which he must, in addition to meeting the requirements common to all schools recognized by the Genl. Med. Council, have acted as Dresser for 9 mos. and Clin. Clerk for another 6 mos., attended *post-mortems* during at least 1 yr., administered anæsthetics

under supervision in 30 cases, have attended not less than 25 cases of labour in an approved lying-in hospl. *or else* not less than 30 cases in the extern dept. of an approved hospl., acted as Gynæc. Clerk and attended instruction in diseases peculiar to women during at least 3 mos. in an approved hospl., during which time he has received practical instruction in the use of Gynæc. and Obst. instruments. *Hospitals* available for clinics: 2 General (470 beds), Children and Women (108 beds), Eye.

Dentistry. The 1st yr.'s course for the B.D.S. is the same as for the B.Sc. The course for the L.D.S. subsequent to registration by the Genl. Med. Council covers 4 yrs., of which 2 must be spent in the Univ.

Public Health; Vet. State Medicine. The course for the D.P.H. covers at least 9 mos., and includes practical laboratory instruction in Hygiene, Chem. and Bact., and Path. of Diseases of animals and practical study under supervision of the duties of Pub. Health Administration, and attendance twice weekly during 3 mos. at a hospl. for Infec. Diseases. Candidates for the D.P.H. must be fully registered med. practitioners. Candidates for the D.V.S.M. must be members of the R.C.V.S. of not less than 12 mos. standing as such.

The (1) Ch.M., (2) M.D.S., (3) M.D. may be conferred respectively on a (1) M.B., Ch.B., (2) B.D.S., (3) M.B., Ch.B. of not less than 2 yrs. standing as such who has passed the prescribed examn.

Engineering. The Regns. for the B.Sc. in Engin. are similar to those for the B.Sc. as given above. The final part (2nd and 3rd yrs.) of the curriculum is in 1 of the 4 Depts.: Civ., Mech., Elec., Automobile. A candidate for the M.Sc. in Engin. must be a B.Sc. in Engin. or person of equivalent standing who has subsequently to graduation pursued the science or practice of Engin. for 2 yrs. and passed a prescribed examn. or submitted a dissertation. For the D.Sc. in Engin. the Regns. are parallel to those for the D.Sc. The courses for the Certif. in Engin. may be followed by day or evening students and spread over as many years as they wish. The Evening Courses involve attendance for 500 hours, of which 300 must be subsequent to passing the Interm. examn. The examn. papers set are the same as those for the B.Sc. degree in Engin., but candidates for the certif. are not required to take as many subjects as candidates for the degree. For the Testamur for Engin. Apprentices a 2 yrs. curriculum and 2 examns. are prescribed.

The Diploma in Education may be conferred on graduates of this or some other approved Univ. or holders of an equivalent diploma who have passed the prescribed examn. after a course covering 1 yr.

The course for the Testamur in Social Study involves 2 yrs. attendance at lectures and practical work, visits to workhouses, schools, labour exchanges, &c., club work, and practical study of improvements in houses. In the 2nd yr. an original investigation must be undertaken and lectures of an advanced character attended.

The course for the TESTAMUR IN JOURNALISM covers 3 yrs., but candidates who have qualified for Matricn. may attend the 3 parts concurrently and complete them in the same year.

RESEARCH DEGREES. For the B.A. or B.Sc. degree original research for 3 (or for the B.Sc. in Engin. 2) yrs. by a candidate previously declared by the Senate to be qualified for such research may be accepted in lieu of a curriculum. If he already holds from any other Univ. a degree or diploma declared by the Senate to be at least equivalent to the B.A. or B.Sc. of this Univ., the prescribed period of research may be 2 yrs. only, and the M.A. may be conferred on similar conditions.

RESEARCH AND ADVICE. £300 a year is set apart for research in Agric. Science. The Colston Research Fund (£400 to £500 p.a.) is applicable to researches of interest to Agric. industries or public health. The Board of Agric. has made a grant of £3500 p.a. for the Agric. and Hortic. Station at Long Ashton. For the purposes of Agric. and Hortic. research and advice at this station the Nat. Fruit and Cider Institute, whose premises and exper. orchards are situated there, is associated with the Univ., the work of the Institute being carried on as a part of that of the Station.

SCHOLARSHIPS OPEN TO GRADUATES. £50 for 1 yr. for Research in Engin.; £30 for 1 yr. in approved post-grad. course, open to women only; 2 of £34 for 1 yr. (1 open to men only); £25 for 1 yr. for Metall. research; £20 for 1 yr. for post-grad. study in Engl. Lit. One of the 1851 Exhibn. Science Research Scholarships (£150 for 2 yrs.) and a Bursary of £70 for Research have been allotted to this Univ. to be awarded in 1914.

WOMEN are not admitted under the age of 17. They have separate common-rooms and are under the supervision of a Lady Tutor. In other respects no distinction is made between men and women. Under the Charter they are eligible for office, and all degrees and courses are open to them.

RESIDENTIAL FACILITIES. There is a Univ. Hall of Residence (Clifton Hill House, Clifton) for women. There are 2 hostels for the women's Training Coll. and 3 for the men's.

The LIBRARIES contain about 35,500 vols.

MUSEUMS AND LABORATORIES. The Univ. has 15 labs. and several teaching museums of its own and uses the Merchant Venturers' labs. for Chem., Phys., Mech., and the various branches of Engin.

There is a Pub. Health Lab. for analysis and Bact. research.

The Long Ashton Agric. and Hortic. Station have been noticed under "Research and Advice."

UNIV. EXTENSION, *v.* notes under 1912–13. In this connexion *v. also* notes *above* on Engin. Certif. and Social Study and Journalism.

Publications. The *Calendar*, issued about Aug., price 1s.; Prospectuses of Faculties and Special Courses, in July (free); *Students' Pocket Diary*, Sept., 1s.; "*Nonesuch*" *Mag.*, 6d. terminally; Annual Report of Council, to which is annexed a list of original works pubd. by members of the Univ.

THE YEAR 1912–13

Benefactions Received. £180,000 for erection of, and maintenance fund for, a block of Univ. buildings, designed as a memorial of the late H. O. Wills, first Chancellor of the Univ.; an offer of £5000 for a Residential Coll. for men students; £20,000 addition to capital endowment; reversion of estate worth £18,000. Grants of £200 and £100 for research were made by the Board of Agric. and the Home Office respectively, the subjects of research to be Cheese and the problems of "Industrial Fatigue." The Univ. Colston Society gave £400 to the Colston Research Committee for the promotion of research in the Univ.

Special Event. Installation of Viscount Haldane as Chancellor, Oct. 17, 1912.

Schools Examinations and University Extension, &c. The Univ. has undertaken the examn. of the Secondary Schools under control of Somerset Educn. Committee, and examn. for Junior Scholarships for Wiltshire; arrangements have been made for holding in July 1914 for the first time a school certif. examn., at which candidates will be able to qualify for Matricn.; in conjunction with the Workers' Educational Assocn. the Univ. has established a Joint Committee on Tutorial Classes.

Number of Students. (1) Day students—undergraduates, 317 (including 95 women); other students preparing for degrees, diplomas, or certifs., 55 (2 women); graduates, 38 (9 women); other students, 444 (144 women), including 165 2 yr. training students (93 women). (2) Evening students, 552 (38 women), including 472 in Engineering.

Honorary Degrees Conferred. *LL.D.*—The Chancellor; the Prime Minister; Earl Roberts, K.G.; Bishops of Hereford and Bristol; Rt. Hon. Sir Edward Fry, G.C.B.; Rt. Hon. A. J. Balfour, M.P.; Rt. Hon. A. H. D. Acland; Rt. Hon. Lewis Fry; Rt. Hon. Henry Hobhouse; Rt. Hon. Sir William Mather; George A. Wills; Bishop (R.C.) of Clifton; Sir George White, Bart.; Sir Isambard Owen; Sir Alfred Hopkinson; Sir Harry Reichel; Sir Alfred Dale; Prof. Michell Clarke, M.D., F.R.C.P.; Sir William Henry White, K.C.B.; Lt.-Col. Sir Francis Younghusband, K.C.I.E.; Sir George Alexander; His Honour Judge Austin; Maynard Willoughby Colchester-Wemyss; Francis Richardson Cross, F.R.C.S.; David Samuel Davies, M.D., M.O.H.; C. H. B. Elliott, M.A.; Joseph Storrs Fry; Richard Glover, D.D.; W. J. Henderson, B.A.; Marian Fry Pease; Henry Arnold

Thomas, M.A.; William Welsford Ward, M.A. *D.Litt.*—Lord Fitzmaurice, P.C.; Rt. Hon. Augustine Birrell, M.P.; Sir Arthur Quiller-Couch, M.A.; President of Magdalen College, Oxford; Headmaster of Clifton College; Headmaster of the Bristol Grammar School; Henry John Newbolt, M.A.; Reginald Fanshawe, M.A. *D.Sc.*—The Vice-Chancellor of Glasgow (Sir Donald MacAlister, K.C.B.); Alderman Cook, D.Sc., Chairman of the City Education Committee; Professor Sollas, LL.D., F.R.S.; Professor Silvanus Thompson, LL.D., F.R.S.; Professor Sidney Young, D.Sc., F.R.S.; Morris W. Travers, D.Sc., F.R.S. *M.D.*—Robert Fletcher, M.D.; Robert Shingleton Smith, M.D., F.R.C.P.; George Munro Smith. *D.Sc. in Engineering*—William Ripper, D.Eng.; John Ryan, D.Sc.; Henry Selby Hele Shaw, LL.D., F.R.S.; William Wilson, M.A. *Ch.M.*—Nelson Congreve Dobson, F.R.C.S. *M.A.*—Alderman Elkins, J.P.; Alderman Sheppard, J.P.; Councillor Burt, J.P.; Fanny Marion Townsend; Evangeline M. Hughes, B.A.; Eleanor A. Phillips; Eleanor A. A. Shekleton, M.A.; May C. Staveley, M.A.; Harry Coward; Councillor Francombe; The Registrar of the Univ.; Mary Clifford; Norah Fry, M.A.; John Gregory; James Havard Thomas.

Other Degrees. D.Sc. 1, M.D. 1, M.A. 2 (women), M.Sc. 3 (2 women), B.A. 20 (12 women), B.Sc. 30 (10 women), *ad eundem* 3 (1 woman), service 1, M.B., B.S. 4 (1 woman), B.Sc.Engin. 8.

Changes in Regulations, &c. A Teachers' Training Board has been formed to which Council and Senate agreed to delegate certain of their powers; Council authorized the establishment of a Testamur for Engin. Apprentices.

Additions to Buildings. Laboratories, a cider-house, and residence for the secretary-manager at Long Ashton for the Agric. and Hortic. Research Station (for which £5100 was provided by subscription and £5000 by the Treasury) were begun; provision was made for the acquisition of 2 houses for a hostel for women students of the Univ. under training for Elem. School Teacherships; a shooting range was provided for the O.T.C.; a Committee is considering the advisability of acquiring a Residential Coll. for men students.

Other New Developments. A superannuation scheme was established for salaried officers in receipt of salaries above a certain amount. It is the scheme framed by the Advisory Committee of the Board of Educn. and will form part of a federal scheme for all Univs. and Colls. in receipt of Exchequer grants.

THE UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER

[Established by Act of the British Columbian Legislature, 1908.]

CHANCELLOR	Hon. F. L. CARTER-COTTON.
PRESIDENT	F. F. WESBROOK, M.A., M.D., C.M., LL.D.

A staff has not yet been appointed, nor have arrangements been completed for providing the necessary accommodation, but a site of 277 acres has been allotted at Point Grey, 6 miles from the centre of Vancouver. A 2 million acre land grant is provided by law. Adequate financial provision has been made by legislative appropriation for building and maintenance during the next 2 yrs., and detailed plans are in process of preparation.

UNIVERSITY OF CALCUTTA

[Established and incorporated by Act II of 1857 of the Legislative Council of India. Constitution modified by Act VIII of 1904.]

CHANCELLOR	THE GOVERNOR-GENERAL OF INDIA.
RECTOR	THE GOVERNOR OF BENGAL.
VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE*	Hon. Justice Sir ASUTOSH MUKERJEE, SARASWATI, SASTRA-VACHASPATI, Kt., C.S.I., M.A., D.L., D.Sc., F.R.A.S., F.R.S.E., F.A.S.B.
REGISTRAR	P. BRÜHL, D.Sc., F.G.S., F.C.S., F.A.S.B.

DEANS OF THE FACULTIES, 1913–14

Arts	Hon. Sir ASUTOSH MUKERJEE, Vice-Chancellor.
Science	H. H. HAYDEN, C.I.E., B.A., B.E., F.G.S., F.A.S.B.
Law	Sir GOOROO DASS BANERJEE, Kt., M.A., D.L., Ph.D.
Medicine	Lt.-Col. B. H. DEARE, M.B., D.P.H., I.M.S.
Engineering	Hon. Mr. B. K. FINNIMORE.
INSPECTOR OF COLLEGES	P. K. RAY, D.Sc. Lond.

UNIVERSITY PROFESSORS, READERS, AND LECTURERS, 1913–14

SAMATULCHANDRA DATTA, M.A., B.L., Tagore Prof. of *Law*.

VACANT, Minto Prof. of *Economics*.

BRAJENDRANATH SIL, M.A., PH.D., K. George V Prof. of *Ment. and Mor. Philos.*

W. H. YOUNG, M.A., B.SC., F.R.S. OF L'POOL, Hardinge Prof. of *Maths.*

G. THIBAUT, C.I.E., PH.D., D.SC., Carmichael Prof. of *Ancient Indian History and Culture.*

ROBERT LESLIE, M.A., AND SATISCHANDRA RAY, M.A.—Asst. Profs. of *Economics.*

* The Syndicate is the executive governing body of the Univ., *v.* Appendix V.

University Readers, 1913–14

(University Readers give special courses of lectures on particular subjects, generally in the cold-weather months. The lectures are intended mainly for graduates engaged in research work or persons who wish to prosecute special studies.)

A. R. FORSYTH, M.A., SC.D. CAMB., LL.D., F.R.S.—"Theory of Functions of Two Complex Variables."

PROF. H. OLDENBERG, PH.D.—"Method of Western Scholarship in the Field of Ancient Indian Research."

S. YAMAKAMI—"Ancient India as depicted in the Writings of the Chinese Pilgrims."

PROF. G. FINDLAY SHIRRAS, M.A.—"Some Recent Developments in Indian Currency."

PROF. HERMAN JACOBI, PH.D.—"Indian Alankara."

PROF. PAUL VINOGRADOFF, PH.D., LL.D., D.C.L., F.B.A.—"Kinship in Early Law."

RAI SAHIB DINESCHANDRA SEN—"Vaishnab Literature of Mediæval Bengal."

PROF. J. N. DASGUPTA, B.A. OX.—"Bengal in the Sixteenth Century."

S. R. BHANDARKAR, M.A.—"Introduction to the Study of Indian Epigraphy."

University Lecturers, 1913–14

University Lecturers are appointed to deliver lectures and conduct classes for research or advanced work for post-grad. courses of study in Arts or Science. Where a College is completely affiliated in any subject for the M.A. or M.Sc. course the College Professors lecturing in it enjoy the title and status of Univ. Lectrs. Junior Univ. Lectrs. may be appointed to provide adequate teaching of Honours subjects for the B.A. and B.Sc. Degree examns. In the lists of staffs of Affiliated Colleges Univ. Lectrs. are marked with asterisks. In addition, the following have been appointed :—Rabindranath Datta, M.A. (*Engl.*) ; Otto Strauss, Ph.D. (*Comp. Philol.*) ; G. Thibaut, C.I.E., Ph.D., D.Sc., F.A.S.B. (*Sansk.* and *Hist.*) ; Mahamahopadhyay Kaliprasanna Bhattacharyya, M.A., Pandit Bhimsen Sastri and Pandit Taraprasanna Vidyaratna (*Sansk.*) ; Prabhu Dutt, Sastri, M.A., Ph.D., B.Sc., B.T., M.O.L. (*Sansk.* and *Ment. and Mor. Philos.*) ; Rakhaldas Banerjee, M.A. (*Epigraphy*) ; Shamsul-Ulama Sheikh Mahmud Gilani (*Arab.* and *Persian*) ; Aga Kazim Shirazi and Zahadur Rahim Zahid Suhrawardy, M.A. (*Persian*) ; Ramdas Khan, M.A., Ph.D. (*Ment. & Mor. Philos.*) ; A. Rasul, M.A., B.C.L., S. Khuda Buksh, M.A., B.C.L., and M. A. Hafiz, B.A. (*Hist.*) ; Satischandra Ray, M.A. (*Economics*) ; Phanindralal Ganguli, M.A., B.L., F.R.A.S. (*Maths.*) ; C. C. Calder, B.Sc., F.L.S. (*Botany*) ; P. C. Mitter, M.A., Ph.D. (*Chemistry*) ; J. Coggin-Brown, M.Sc., F.C.S., F.G.S., and Hemchandra Dasgupta, M.A., F.G.S. (*Geology*).

The University has also appointed Instrs. in French, German, and Pali, as follows : *French*—G. Le Faucheur. *German*—R. Friedlieb.

Pali—Swami Punnananda Samana and Srijut Benimadhab Baruya, B.A.

GENERAL INFORMATION

Most of the instruction preparatory to examns. for the B.A., B.Sc., M.B., and B.E. degrees is given in Affiliated Colls. (*v.* Appendix V), but the courses of study followed therein are prescribed by the Univ., which has also the largest share in providing for post-grad. teaching. The Affiliated Colls. form part of the Univ., to which they are closely connected, and together they form the centre of educational activity in Bengal. Regns. provide for their inspection once a year by an inspector of high academic standing possessing experience of Indian Colls.

Applications for affiliation are, after inquiry, submitted to Government with the opinions of the Senate. A list of the institns. affiliated up to or above the B.A. standard is given below.

Degrees, &c. Arts—B.A., M.A., D.Phil. ; Science—B.Sc., M.Sc., D.Sc. ; Teaching—L.T., B.T. ; Law—B.L., M.L., D.L. ; Medicine—M.B., M.D., M.S., M.O., D.P.H. ; Engineering—B.E., D.Sc. (Engineering).

Non-Collegiate students applying for an order of the Senate under sec. 19 of the Act (*v.* Appendix V) must, in addition to giving special reasons for exceptional treatment, satisfy the Syndicate as to their good conduct and diligent and regular study and, in the case of a science subject for which a practical course is necessary, as to having taken such a course in the laboratory of an approved authority. Non-Coll. *women* students are admitted to the Interm. examn. in Arts or Sc. and the B.A. without a special order of the Senate if they satisfy the Syndicate on the points above mentioned.

Arts and Science. Candidates for the B.A. or B.Sc. degree take after Matricn. (the min. age for admission to which is 16) a 2 yrs. course leading to the Interm. examn. in Arts or Sc., as the case may be. After passing this they take a further 2 yrs. course leading to the B.A. or B.Sc. If after passing the Interm. examn. in Arts a student wishes to proceed to the B.Sc. he enters the 2nd yr. of the Interm. in Sc. course, and *vice versa*. Having passed the Interm. examns. both in Arts and in Sc., he may then take the B.A. and B.Sc. courses concurrently and reach the B.A. and B.Sc. in 5 yrs. from Matricn. The compulsory subjects for the B.A. are: (1) Engl. ; (2) Vernac. Composn. Two other subjects must be taken, of which 1 must belong to the following group: Hist., a Lang., Maths., Ment. and Mor. Philos., Pol. Econ. and Pol. Philos. ; the other may be one of the following: Bot., Chem., Phys., Physiol., Zool. Additional Honours subjects include Nat. Theol., Hist. of Philos., special texts and Essay. The Pass course may be taken in 4 subjects, or the Pass course in 3 and Honours course in 1. The M.A. degree may be taken 2 yrs. later, after a regular course in the subject selected in a Coll. affiliated in that subject up to the M.A. standard or under a Univ. Prof. or Lectr.

A private student may, subject to the provisions of sec. 19 (v. Appendix V), take the M.A. (except in the B.Sc. subjects) 3 yrs. after the B.A. Where no provision exists for a regular course under Univ. Profs. or Lectrs. he may take the M.A. 2 yrs. after the B.A. subject to sec. 19. Any M.A. placed in the 1st or 2nd class at the M.A. examn. may 3 yrs. later present a thesis for the D.Phil. The B.Sc. subjects are: Bot., Chem., Geol., Maths., Phys., Physiol., Exper. Psych., and Zool. The Pass course may be taken in 3, or the Pass in 2 and Honours in 1. The regns. for the M.Sc. and D.Sc. are similar to those for the M.A. and D.Phil., except that the only subject in which a private student may take the M.Sc. is Maths.

Teaching. The L.T. may be taken 2 yrs. after the Interm. examn. in Arts or Science provided the candidate has, in addition to attending a regular course in the Art and Theory of Teaching, undergone practical training for 6 mos. in a Training School approved by the Syndicate or served as a teacher in a recognized school for 1 yr. The B.T. may, subject to a similar proviso, be taken 1 yr. after the B.A. or B.Sc.

Law. A candidate for the B.L. must, after passing the B.A. or B.Sc., prosecute the prescribed 2 yrs. course in a Coll. affiliated in Law, passing a Prelim. examn. after the 1st yr. and a Final after the 2nd. The M.L. examn. is open to any B.L. The D.L. may be taken by a M.L. of 1 yr.'s standing. A thesis is required.

Medicine. The Prelim. Scientific M.B. examn. may be taken after a 1 yr.'s course subsequent to Matricn. This is followed by a 2 yrs. course in a Coll. of Med. and the 1st M.B. examn. Next, there is a 3 yrs. course in a Coll. of Med. leading to the Final M.B. Candidates for the M.D. examn. must have had 3 yrs. continuous practice of the Med. profession or 2 yrs. hospl. practice; for the M.S., both the professional and hospl. practice. Both periods may be reduced by a year in the case of a candidate for the M.D. or M.S. who graduated in Med. with Honours in Med. or Surg., as the case may be. For the M.O. examn. the conditions are the same as for the M.D., with the addition of 6 mos. clin. instruction in an Obst. and Gynæc. Hospl. or ward and personal charge of 20 cases of labour.

The D.P.H. examn. may be taken by any M.B. who subsequent to passing his M.B. has attended a contagious diseases hospl. or ward during 3 mos. and a 6 mos. approved course of laboratory instruction, and spent 6 mos. in acquiring practical knowledge of the duties of Public Health Administration.

Engineering. A candidate for the B.E. must first pass the Interm. examn. in Arts or Science. This is followed by a 2 yrs. course in a Coll. of Engin., after which the Interm. examn. in Engin. must be taken. Next follows a 2 yrs. course in class, lab., and workshop in 1 of the 3 branches, Civ., Mech. and Elec., and Mining, after which the B.E. examn. may be taken. For the D.Sc. in Engin. a thesis is required and, unless the candidate took a 1st class in the B.E., an examn.

SCHOLARSHIPS, &c., FOR GRADUATES. Among the numerous scholarships, medals, and prizes awarded for the encouragement of post-grad. study are: 12 of Rs.32 p.m. and 1 of Rs.14 p.m., awarded on the results of the B.A. and B.Sc. examns.; 5 gold medals and 2 prizes of Rs.500 on the results of the M.A. and M.Sc.; 2 gold medals and 2 prizes of Rs.350 for research in Arts and Science subjects; a gold medal and Rs.750 for research in Law; 2 studentships of Rs.1400 for research in Literature and Science respectively, open to Masters and Doctors of this Univ.; Rs.50 p.m. for research in Med.; Rs.30 p.m. for Elec. or Mining Engin. students; Rs.900 for advanced study in Science or Letters; grads. who have passed the examn. for the M.A. or M.Sc. degree or taken Honours in the B.A. or B.Sc. and are under 22 yrs. of age are allowed to compete for the Govt. of India Scholarships of £200 p.a., tenable for 3 yrs. in England, which are placed at the disposal of the Indian Univs. in rotation.

RESIDENTIAL FACILITIES. The regns. provide that every student reading in an affiliated Coll. for a Univ. examn. who does not reside with parents or other legal guardian or a guardian appointed by the Principal shall reside in the Coll. or in lodgings approved by his Coll.

WOMEN are admitted to Univ. examns., and may, if they so desire, be examined in a separate place under the superintendence of ladies (*see above also*—" Degrees ").

PUBLICATIONS. The *Calendar* (Part I, price Rs.2, contains Acts and Rules; Part II, Rs.3, constitution of the Senate, &c., lists of Professors, &c., and of affiliated institns., endowments, textbooks, rules for examns., &c.; Part III, Rs.2, lists of grads. and undergrads.; Part IV, Rs.2, examn. papers); *Univ. Studies*, being prize essays and theses, &c., issued separately.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. (1) Sir Taraknath Palit's gift, worth over Rs.14,00,000. Out of the income derivable from this endowment 2 chairs will be maintained, 1 for Physics and the other for Chemistry. On the land which forms part of the gift and which lies at a short distance from the Senate House the Univ. will build a laboratory. Rs.1,00,000 will be set apart for the founding of a scholarship to be awarded to a distinguished grad. of high character to enable him to proceed to some foreign Univ. for the purpose of advanced study and research in some special branch of Science. It is expressly stated in the trust-deed that the object of the donor is the promotion and diffusion of scientific and technical education and the cultivation and advancement of Science, Pure and Applied, among his countrymen by and through indigenous agency. The chairs founded by him will therefore always be filled by Indians, but the Profs.-elect may, at the discretion of the Univ. authorities, be required to receive special training abroad before they enter upon the duties of their office.

(2) Dr. Rash Behary Ghose's gift of Rs.10,00,000 for the promotion of scientific and technical education and the cultivation and advancement of Science, Pure and Applied, amongst his countrymen by and through indigenous agency. Four Univ. Chairs are to be established—for Applied Maths.; Phys.; Chem.; Bot., with special reference to Agric. The chairs are to be always filled by Indians (that is, persons born of Indian parents). Every Prof.-elect may, in the discretion of the Senate, be required to receive special training under specialists in Europe, America, Japan, or elsewhere outside India, and will be required to carry on original research with a view to extend the bounds of knowledge, and to improve the Arts, Industries, Manufactures, and Agriculture of this country, and to stimulate and guide research by advanced students and, generally, to assist them in post-grad. work. Eight studentships of Rs.900 p.a. are to be founded, to be annually awarded to distinguished Masters in Arts or Science; 2 students to be attached to each Prof. to carry on investigation under his guidance and generally to assist him in his work of original research. The Senate is to make adequate provision for Labs., Museums, Workshops, &c., for the due discharge of their duties by the Profs. and the students attached to them.

Honorary Degrees Conferred. *D.Ph.*—Lt.-Col. Douglas Craven Phillott, I.A. *D.Sc.*—Prof. Paul Johannes Brühl, F.C.S., F.G.S., F.A.S.B.; Prof. Jagadischandra Bose, C.S.I., C.I.E., M.A., D.Sc.; Dr. Andrew Russell Forsyth, F.R.S. *D.Litt.*—Prof. Herman Oldenberg. *LL.D.*—Sir Taraknath Palit, Kt.

Other Degrees (conferred in March 1913). M.A., 105; M.Sc., 35; B.A., 758; B.Sc., 168; D.Sc., 1; B.L., 302; M.B., 3; B.E., 16; B.T., 37.

New Buildings. Durbhanga Library, costing over Rs.6,00,000, towards which the Maharaja Sir Rameswar Singh contributed Rs.2,50,000; Univ. Law Coll. Hostel, costing Rs.5,00,000, towards which the Govt. of India contributed Rs.3,00,000. Both buildings are now completed. The Hostel building includes several examn. halls. *See also* "Benefactions": detailed plans and an estimate are under preparation for the proposed Univ. Coll. of Science.

New Affiliations. Bankipur, B.N. Coll., Chem. (B.A. Pass), from 1912–13; Bankura, W.M. Coll., Engl. (B.A. Hon.), Sansk. (B.A. Hon.), from 1911–12; Berhampur, Krishnath Coll., Bot. (I.A. and I.Sc.), from 1911–12; Calcutta, Bangabasi Coll., Engl. (B.A. Hon.), from 1912–13; Calcutta, Indian Assocn. for the Cultivation of Science, Bot. (B.Sc. Pass), from 1912–13; Calcutta, Pres. Coll., Chem. and Phys. (M.A. and M.Sc.), from June 1911, and Pali (B.A. Hon), from 1912–13; Chittagong Coll., Maths. (B.A. and B.Sc. Hon.), Chem. (B.A. and B.Sc. Pass), from 1912–13; Daulatpur Hindu Academy, Bot. (I.A. and I.Sc.), from 1912–13; Rajshahi Coll., Pol. Econ. and Pol. Philos. (B.A. Pass), from 1911–12; Rangoon Coll., Phys. (I.A. and

I.Sc.), from 1912–13; Rangoon, Bapt. Coll., Maths. (I.A.), from 1912–13.

ADDITIONS TO LIBRARY. Rs.1,00,000 has been set apart for purchase of books and furniture; the following are among the more important of the acquisitions of the past year: A complete set of the Tibetan Tengyur in 223 vols., with 2 index vols.; Kengyur, 101 vols.; Reports of the Industrial Commission, U.S.A., &c., from Washington; Sanskrit works, including the S. Indian revisions of the "Ramayana" and the "Mahabharata," published at Kombakonum; the memorial edition of the works of Sri Sankaracharyya; the private Library of Dr. P. Brühl, consisting of rare scientific works and journals.

AFFILIATED INSTITUTIONS

There are Colls. recognized in Degree courses at Bankipur, Bankura, Barisal, Berhampur, Bhagalpur, Calcutta, Chittagong, Cooch-Behar, Dacca, Gauhati, Hazaribagh, Hughli, Katak, Krishnagar, Muzafferpur, Patna, Rajshahi, Rangoon, Sibpur.

[A, affiliated in Arabic; B, Botany; C, Chem.; G, Geol.; H, Hist.; M, Maths.; Pa, Pali; Pe, Persian; P.E, Pol. Econ.; Ph, Philos. (Ment. and Mor.); Ps, Physics; PP, Pol. Econ. and Pol. Philos.; Py, Physiol.; S, Sansk. All Colls. affiliated up to the B.A. standard are affiliated in English and Vernacular Composition.]

BANKIPUR, *Behar National College*. C, H, M, Pe, Ph, PP, S, up to B.A. Principal, and Prof. of *Philos.*—Debendranath Sen, M.A. Number of students in B.A. Classes, 46. Number of B.A. passes in 1912–13, 14. There is a hostel for 50 Hindu and Mohammedan students.

BANKURA, *Wesleyan College*. M, Pe, PP, S, up to B.A. Principal, and Lectr. in *Engl.*—A. E. Brown, M.A., B.Sc. Lond. Number of students in B.A. Classes, 28. Number of B.A. passes in 1912–13, 18.

BARISAL, *Brajamohan Institution*. M, Pe, Ph, S, up to B.A. President—E. L. Strong, M.A.; Offg.—J. E. Roy. Number of students in B.A. Classes, 47. Number of B.A. passes in 1912–13, 39. There is a boarding-house for 50 students controlled by a member of the staff.

BERHAMPUR, *Krishnath College*. C, H, M, Ph, Ps, PP, S, up to B.A. and B.Sc. Principal—E. M. Wheeler, M.A.; Prof. of *Philos.*—*Hiralal Halder, M.A., Ph.D. Number of students in the B.A. Class, 138; B.Sc., 34. Number of B.A. passes in 1912–13, 84; B.Sc., 24. There is a hostel controlled by the Principal.

BHAGALPUR, *Tejnarayan Jubilee College*. C, H, M, Pe, Ph, PP, S, up to B.A. Principal, and Prof. of *Engl. Lit.*—Narendranath Ray, M.A. Number of students in B.A. Classes, 42. Number of B.A. passes in 1912–13, 26. A hostel is attached.

* University Lecturer, 1913–14.

CALCUTTA, *Bangabasi College.* B, C, H, M, Ps, PP, S, up to B.A. and B.Sc. Principal—G. C. Bose, M.A., M.R.A.C., M.R.A.S., F.H.A.S. Number of students in B.A. Class, 41; B.Sc., 37. Number of B.A. passes in 1912–13, 31; B.Sc., 16.

CALCUTTA, *Bethune College* (Girls). H, Ph, S, up to B.A. President—The Director of Pub. Instrn.; Principal, and Prof. of *Engl. Lit.*—Mrs. Kumudini Dass, B.A. Number of students in B.A. Class, 7. Number of B.A. passes in 1912–13, 5.

CALCUTTA, *Bishop's College* (S.P.G.). H, M, Ph, S, up to B.A. Principal—R. Gee, M.A. Ox. Number of students in B.A. Class. 8. Number of B.A. passes in 1912–13, 4. Only Christians are admitted.

CALCUTTA, *City College.* C, H, M, Pe, Ph, Ps, PP, S, up to B.A. Principal—*Herambachandra Maitra, M.A.; Vice-Principal—Kaliprasanna Chattoraj, M.A. Number of students in B.A. Class, 248. Number of B.A. passes in 1912–13, 143.

CALCUTTA, *David Hare Training College* (Govt.). Affiliated up to B.T. Principal, and Prof. of *Method*—W. E. Griffith, M.A. Ox.; Visiting Prof. of *Psychology*—W. C. Wordsworth, M.A. Ox. Other Profs. and Masters of *Method*—Chintaharan Chakravarti, M.A., B.T.; Bana Bilas Ray, M.A., B.T. Number of students from Govt. institutions limited to 24. Number of students in B.T. Class, 25. Number of passes in 1912–13 (B.T.), 22. There is a hostel under the direct control of the Principal.

CALCUTTA, *Diocesan Mission Girls' School.* H, M, PP, up to B.A. Under the management of the Community of St. John Baptist. Sister Superintendent—Mary Victoria. Number of students in B.A. Class, 8. Number of B.A. passes in 1912–13, 7.

CALCUTTA, *Indian Association for the Cultivation of Science,* 210 Bow Bazar St. B. President—The Lieut.-Govr. of Bengal. Hon. Secy. —Amrita Lal Sircar, I.M.S., F.C.S.

CALCUTTA, *London Missionary Society's Institution, Bhowanipur.* Training Dept. affiliated up to L.T. Principal, and Prof. of *Engl.* and *Ment. and Mor. Philos.*—A. Warren, B.A.; Prof. of *Pedagogy*—C. Headland, B.Sc., A.R.C.S. Number of students in L.T. Class, 7. Number of L.T. passes in 1912–13, 2.

CALCUTTA, *Medical College of Bengal.* Affiliated up to M.B. Number of admissions yearly generally 120. Number of students in M.B. Classes, 395. Number of passes in M.B. 1912–13, 225. Principal, and Prof. of Principles and Practice of *Medicine*—Lt.-Col. J. T. Calvert, M.B. Lond., M.R.C.P. Lond., D.P.H. Camb., I.M.S. Other Professors: *Anat.*—Diwan Bahadur Hira Lal Basu, F.R.F.P.S. Glas.; *Bot. and*

* University Lecturer, 1913-14.

Zool.—Capt. R. E. Lloyd, M.D., D.Sc., I.M.S.; *Chem. and Phys.*—Capt. F. M. Windsor, I.M.S.; *Dentistry*—J. Hardy Taylor, L.D.S.; *Hygiene*—Capt. A. M. Jukes, M.D., I.M.S.; *Mat. Med.* and *Clin. Med.*—Lt.-Col. B. H. Deare, I.M.S.; *Med. Jurispr.*—Major O. St. J. Moses, I.M.S.; *Midw.*—Lt.-Col. C. R. M. Green, M.D., F.R.C.S., D.P.H., I.M.S.; *Ophth. Med. and Surg.*—Lt.-Col. F. P. Maynard, M.B., D.P.H., F.R.C.S., I.M.S.; *Path.*—Major L. Rogers, M.D., F.R.C.S., F.R.C.P., I.M.S.; *Physics*—Babu Tulsidas Kar; *Physiol.*—Major D. McCay, M.D., I.M.S.; *Practical Class in Clin. Methods*—Capt. J. D. Sandes; *Surgery, Principles of*—Lt.-Col. R. Bird, M.D., F.R.C.S., I.M.S.; *Surgery, Clinical and Operative*—Lt.-Col. C. R. Stevens, M.D., F.R.C.S., I.M.S.

CALCUTTA, *Metropolitan Institution.* C, H, M, Pa, Ph, Ps, PP, S, up to B.A. and B.Sc. Principal—Saradaranjan Ray, Vidyavinoda, M.A.; Vice-Principal—*J. R. Banerjee, M.A., B.L.; Prof. of *Phys.*—*B. C. Ghose, M.A., M.B., Ch.B. Number of students in B.A. Classes, 265; B.Sc., 30. Number of B.A. passes in 1912–13, 69; B.Sc., 16.

CALCUTTA, *Presidency College.* A, C, G, H, M, Pa, Pe, Ps, Py, PP, S: up to M.A. in C, English (Group A), H, M (mixed), Pe, Ps, PP; up to B.A. and B.Sc. in others. Maintained by Govt. Number of undergrads. limited to 650, and of admissions to *Phys.* and *Chem.* Classes to 10. Principal—H. R. James, M.A. Ox. Other Professors: *Engl. Lit.*—*T. S. Sterling, M.A. Camb.; *J. W. Holme, M.A. Liv.; R. N. Gilchrist, M.A. Aberd.; M. Ghose, B.A. Ox.; *Profullachandra Ghosh, M.A.; Amulyadhan Banerjee, M.A.; Nikhilnath Maitra, M.A. *Ment. and Mor. Philos. and Logic*—*Adityanath Mukherjee, M.A., Ph.D.; Khagendranath Mitra, M.A. (Offg.). *Hist.*—E. F. Oaten, M.A. Ox.; *J. N. Das Gupta, B.A. Ox.; Upendranath Ghosal, M.A. *Pol. Econ. and Pol. Philos.*—W. C. Wordsworth, M.A.; *J. C. Coyajee, M.A., LL.B. *Sansk., Pali, and Bengali*—*Asutosh Sastri, M.A.; Nilmani Chakravarti, M.A.; Harihar Banerjee, M.A. *Arabic and Persian*—Shams-ul-Ulama Mirza Ashraf Ali; Maulavi Hedayat Hossain. *Maths. and Astron.*—C. E. Cullis, M.A., Ph.D. (on leave); D. N. Mallik, B.A., Sc.D., F.R.S.E.; Saradaprasanna Das, M.A. (on deputation); *Syamadas Mukherji, M.A. (on deputation); Raghupaty Ghatak, M.A. (Offg.); Hemchandra Sen Gupta, M.A.; Bankimdas Banerjee, M.A. *Phys.*—J. C. Bose, C.I.E., M.A., D.Sc.; C. W. Peake, M.A.; E. P. Harrison, M.A., Ph.D. *Chem.*—P. C. Ray, D.Sc. Edin., F.C.S., Ph.D. Cal.; Jyotibhusan Bhaduri, M.A., F.C.S. *Physiol.*—*S. C. Mahalanobis, B.Sc., F.R.S.E. *Geol.*—E. Vredenburg, B.Sc., F.C.S. And 19 Assts. and Demrs. Number of students, 973. Number of passes in 1912–13, 209. Eden Hostel for Hindus has accommodation for 260; Mohammedan students enjoy certain privileges in consideration of certain classes of the Calc. Madrassa attending lectures in the Coll.

CALCUTTA, *Ripon College.* C, H, M, Pe, Ph, Ps, PP, S, up to B.A. and B.L. Principal—Janakinath Bhattacharyya, M.A., B.L.

* University Lecturer, 1913-14.

Professors—J. M. Kanjilal, M.A., B.L.; R. C. Sen, Bar.-at-Law. Asst. Professors—Haranchandra Banerji, M.A., B.L.; Nagendranath Ghosh, M.A., B.L.; Lalitmohan Mukherji, M.A., B.L.; Gangadhar Mukherji, B.L.; **Brajendranath Chatterji, M.A., B.L.**

General Department of Ripon College. Principal, and Prof. of *Phys. Science*—**Ramendra Sundar Trevedi, M.A.**

CALCUTTA, *Sanskrit College.* H, Ph, S, up to B.A. Students also prepared for Sansk. Title examn. Number of students in B.A. Classes, 187. Number of B.A. passes in 1912–13, 97. Principal, and Prof. of *Oriental Langs.*—*Mahamahopadhyay Satischandra Acharyya, Vidyabhusan, M.A., Ph.D., M.R.A.S., F.A.S.B. Other Univ. Lectrs., 1913–14—*Maha. Tarkadarsanthirtha (*Nyaya*); *Maha. P. Tarkabhushan (*Hindu Law*); *Pandit R. Vidyabhushan (*Hindu Law and Rhetoric*); *Pt. Lakshman Sastri (*Vedanta*); *Pt. Bahuballabh Sastri (*Veda and Grammar*); *Pt. T. Vyakaranacharyya (*Panini and Vedanta*); *Pt. Muralidhur Banerjee, M.A. (*Sansk.*); *Pt. Smritikantha Vachaspati (*Hindu Law*).

CALCUTTA, *Scottish Churches College.* C, H, M, Ph, Ps, PP, S: up to M.A. and M.Sc. in Ment. and Mor. Philos. and Pure Maths.; to B.A. and B.Sc. in others. The General Assembly's Institn. and Duff Coll. were united under the above designation in 1908. The Coll. works under the Scot. Churches Mission with a Council in Calc. and Board of Trustees in Edin. Principal, and Prof. of *Chemistry*—J. Watt, M.A., F.C.S. Other Professors: *English*—G. Bruce, M.A. (on leave); J. C. Scrimgeour, M.A. (on leave); A. Mauchline, M.A., B.D.; J. McWilliam, M.A., B.D.; A. Cameron, M.A. *Philos.*—H. Stephen, M.A.; W. S. Urquhart, M.A. *Maths.*—A. Thomson, M.A.; Gaurisankar De, M.A., B.L.; *Indubhusan Brahmachari, M.A. *Hist.*—Adharchandra Mukerjee, M.A., B.L.; S. K. Ray, M.A. *Sansk.*—Behari Lal Banerji, M.A.; Nanda Lal Bhattacharyya. *Sansk. and Bengali*—Kalipada Mukerji. *Pol. Econ. and Pol. Philos.*—J. C. Kydd, M.A.; Kausiknath Bhattacharyya, M.A. *Chem.*—B. C. Dutt, M.A. *Phys.*—J. C. Ghosh, M.A.; Rajani Kanta De, M.A., B.Sc. And 7 Assts. to Profs. and Tutors. Number of students in the B.A. Classes, 198; B.Sc., 47. Number of B.A. passes in 1912–13, 141; B.Sc., 37. There are 4 hostels, of which 1 is primarily for Christians.

CALCUTTA, *St. Xavier's College* (S.J.). C, M, Ps, up to B.Sc. Students of other religious persuasions are admitted. Rector, and Prefect of Studies—E. O'Neill, S.J. Number of students in B.Sc. Classes, 1912–13, 31. Number of B.Sc. passes in 1912–13, 21.

CALCUTTA, *The University Law College.* Principal—Satischandra Bagchi. B.A., LL.B. Camb., LL.D. Dub., Bar.-at-Law. Professors†—Bejoykishore Acharyya, B.A., LL.B. Edin., (B), Tagore Prof.;

* University Lecturer, 1913-14.
† (B)=Bar.-at-Law; (V)=Vakil, High Court.

Karunamay Basu, M.A., B.L., (V); *Manmathanath Basu, M.A. Camb., (B); Sibaprasanna Bhattacharyya, B.A., (V); Sudhansumohan Bose, M.A., LL.B. Camb., (B); *S. Khoda Bux, M.A., B.C.L. Ox., (B); Brajalal Chakrabarti, M.A., B.L., (V); Hiralal Chakrabarti, M.A., B.L., (V); Mohinimohan Chakrabarti, M.A., B.L., (V); *Praphullakumar Chakrabarti, M.A. Camb., (B); Brajendranath Chatterjee, M.A., B.L., (V); Haraprasad Chatterjee, M.A., B.L., (V); Mohinimohan Chatterjee, M.A., B.L., (V); Pramathanath Chatterjee, M.A., (B); Pramathanath Datta, M.A., B.L., (B); Samatulchandra Datta, M.A., B.L., (V), Tagore Prof.; Surendranath Datta, M.A., LL.B. Edin., (B); Haricharan Ganguli, M.A., B.L., (V); Batukrishna Ghose, M.A., B.L., (B); Umeschandra Ghosh, M.A., B.L., (V); *Nagendranath Gupta, M.A. Ox., (B); Manindranath Kanjilal, M.A., LL.B. Camb., (B); Saratchandra Lahiri, M.A., B.L., (V); Birajmohan Majumdar, M.A., B.L., (V); Nagendranath Mitra, M.A., B.L., (V); Jatindranath Mitter, M.A., (B); Prithwiraj Mitter, B.A., (B); Asutosh Mookerjee, M.A., B.L., (V); Baranasibasi Mookerjee, M.A., B.L., (V); Lalitmohan Mookerjee, M.A., B.L., (V); Jogendranath Mookerjee, M.A., B.L., (V); Muhammad Mustafa Khan, M.A., B.L., (V); Haradhan Nag, M.A., B.L., (V); Subodhchandra Ray, B.A., LL.B. Camb., (B); Jyotiprasad Sarbadhikari, M.A., B.L., (V); Krishnaprasad Sarbadhikari, M.A., B.L., (V); Gunadacharan Sen, M.A., B.L., (V); Harendranath Sen, M.A., B.L., (B); Nirmalchandra Sen, M.A., (B); Nisitchandra Sen, B.A., (B); Nareschandra Sengupta, M.A., M.L., (V). Number of students, 1913, 1765. Number of passes, 1913, 714. A hostel is attached to the Coll.

CHITTAGONG *College*. A, H, M, Pa, S, Pe, up to B.A. Supported by Govt. and under control of the Director of Pub. Instrn. Principal, and Prof. of *Engl.*—F. C. Turner, M.A. A Hindu hostel is attached. Number of students in B.A. Classes, 1912–13, 20. Number of B.A. passes, 1912–13, 16.

COOCH-BEHAR, *Victoria College*. H, M, Ph, PP, S, up to B.A. Principal—Jaygopal Banerjee, M.A.; Prof. of *Hist. and Econ.*—*Subodhchandra Mukerjee, M.A. Number of students in B.A. Classes, 22. Number of B.A. passes in 1912–13, 16. There is a hostel under the control of the Principal.

DACCA *College*. A, C, H, M, Pe, Ph, Ps, PP, S: up to M.A. in English (Group B); up to B.A. and B.Sc. in others; and up to B.L. Supported by Govt. and under control of the Director of Publ. Instrn. Principal—W. A. J. Archbold, M.A., LL.B. Professors: *Engl. Lit.*—J. R. Barrow, B.A.; Egerton Smith, M.A.; Satyendra Nath Bhadra, M.A.; Padmini Bhusan Rudra, M.A. *Maths.*—J. M. Bottomley, B.A.; Kalipada Basu, M.A.; Nareshchandra Ghose, M.A. *Hist.*—R. B. Ramsbotham, B.A.; Aswinikumar Mukhopadhyay; G. F. Shirras, M.A. (on deputation) (*H. and Pol. Econ.*). *Pol Econ.*—*T. T. Williams, B.A. (acting); Sachindrachandra Das Gupta, M.A. *Sansk.*

*University Lecturer, 1913–14.

—Bidhubhusan Goswami, M.A. *Chem.*—*E. R. Watson, M.A., B.Sc.; *B. N. Das, M.A. Cal., B.Sc. Lond.; Haridas Saha, M.A. *Phys.*—A. Macdonald, M.A.; D. B. Meek, M.A.; Surendranath Ghosh, M.A. *Phys. and Chem.*—Bawa Kartar Singh, B.A. *Philos.*—Abinashchandra Majumdar, M.A. *Arabic and Pers.*—M. Musharraf-ul-Hukk, Ph.D.; Maulvi Muhammed Irfan, M.A. And 3 Demrs., 2 Lab. Assts., and Resident Assistant Surgeon. There is a hostel for 206 students under the control of the Principal.

Law College. Vice-Principal—Moazam Ali, B.A. Ox., Bar.-at-Law. Lecturers—Rai Iswarchandra Ghose, Bahadur, B.L.; A. Kabir, Bar.-at-Law.

Number of students in the B.A. Classes, 138; B.Sc., 32; M.A., 9; B.L., 250. Number of passes in 1912–13, B.A., 87; B.Sc., 20; M.A., 4; B.L., 107.

DACCA, *Jagannath College.* M, Pe, Ph, S, up to B.A. Principal—Lalitmohan Chatterjee. Number of students in B.A. Class, 104. Number of B.A. passes in 1912–13, 64. There is a hostel under the control of the Principal.

DACCA, *Government Training College.* Affiliated up to B.T. Principal—E. E. Biss, M.A. Vice-Principal—J. A. Taylor, M.Sc. Birm. Professors—Joygopal De, B.A.; Monoranjan Mitra, B.A., B.T. Lecturers—Nogendranath Majumdar, M.A.; Maulvi Kazi Imdadul Huq, B.A. There are 1 Hindu and 1 Mohammedan hostel, accommodating 40 students in all. Number of students, 23. Number of B.T. passes, 22.

GAUHATI, *Cotton College.* A, H, M, Pe, Ph, S, up to B.A. Principal, and Prof. of *English*—F. W. Sudmersen, B.A. Prof. of *Maths.*—*Haridas Bagchi, M.A. A Govt. Coll. under control of the Director of Pub. Instrn. There are separate hostels for Hindus and Mohammedans under the control of the Principal. Number of students in B.A. Class, 22. Number of B.A. passes in 1912–13, 19.

HAZARIBAGH, *St. Columba's (Dublin University Mission) College.* H, M, Pe, Ph, PP, S, up to B.A. Principal and Headmaster—P. L. Singh, M.A. Number of students in B.A. Class, 21. Number of B.A. passes in 1912–13, 16.

HUGHLI *College.* H, M, Pe, S, up to B.A. Maintained by Govt. and under control of Director of Pub. Instrn. Offg. Principal, and Prof. of *Maths.*—Saradaprasanna Das, M.A. Other Professors—*Bipinbihari Sen, M.A. (*Engl. Lit. and Hist.*); *Bhagabatkumar Goswami, Sastri, M.A. Number of students in B.A. Class, 20. Number of B.A. passes in 1912–13, 11. There are 2 hostels, 1 for Hindus and 1 for Mohammedans.

KATAK, *Ravenshaw College.* C, M, Pe, Ph, S, up to B.A. Supported by Govt. and under control of the Director of Pub. Instrn.

* University Lecturer, 1913-14.

Principal, and Prof. of *Maths.*—R. W. F. Shaw, M.A. There are 2 Hindu hostels, with accommodation for 100 students, under the control of the Principal. Number of students in B.A. Class, 45. Number of B.A. passes, 1912–13, 32.

KRISHNAGAR *College.* C, H, M, Ps, S, up to B.A. and B.Sc. Under the control of the Director of Pub. Instrn. Offg. Principal, and Prof. of *Engl. Lit.*—Satischandra De, M.A., B.L. There is a Hindu hostel under the direct control of the Principal. Number of students in B.A. Class, 9; B.Sc., 10. Number of B.A. passes in 1912–13, 6; B.Sc., 8.

MUZAFFERPUR, *Bhumihar Brahman College.* A, H, M, Pe, PP, S, up to B.A. Principal—Purnachandra Raychudhuri, M.A., B.L. Number of students in B.A. Class, 18. Number of B.A. passes in 1912–13, 12.

PATNA *Government College.* A, C, H, M, Pe, Ps, PP, S, up to B.A. and B.Sc. Principal—C. Little, M.A. Prof. of *Hist.*—*Jadunath Sarkar, M.A. Prof. of *Pol. Econ. and Pol. Philos.*—*C. Russell, M.A. Number of students in B.A. Classes, 51; B.Sc., 9. Number of B.A. passes in 1912–13, 41; B.Sc., 7. There are hostels for 43 Hindus and 23 Mohammedans.

PATNA *Government Law College.* Affiliated up to B.L. Under control of the Director of Public Instruction. Principal—Atma Ram, B.L. Professors—Maulvi Syed Zain Uddin, B.L., Vakil; Ragho Prasad, B.L., Vakil; Dhanush Dhari Prasad Sinha, M.A., B.L. Number of students in B.L. Class, 88. Number of B.L. passes in 1912–13, 47. There is a hostel under direct control of the Principal.

PATNA *Government Training College.* Affiliated up to L.T. Number of students limited to 12. Admission restricted to Teachers of Govt. Schools deputed for training. Principal, and Prof. of *Educn. and Engl.*—J. H. Thickett, M.A. Camb. Number of students in L.T. Class, 7. Number of L.T. passes in 1912–13, 6. There is a hostel under the supervision of one of the Profs.

RAJSHAHI *Government College.* A, C, H, M, Pe, Ph, Ps, S, up to B.A. and B.Sc. Under control of Director of Pub. Instrn. Principal, and Prof. of *Phys. Science*—Rai Kumudinikanta Banerjee, Bahadur, M.A. Number of students in B.A. Class, 79; B.Sc., 34. Number of B.A. passes in 1912–13, 56; B.Sc., 21. There are 2 Hindu and 1 Mohammedan boarding-houses.

RANGOON *College.* C, M, Pa, Ph, up to B.A. Principal—M. Hunter, M.A., F.C.S. Number of students in B.A. Class, 40. Number of B.A. passes in 1912–13, 25. There is hostel accommodation for 120 students, chiefly Burmese.

* University Lecturer, 1913-14

RANGOON *Baptist College.* H, Ph, up to B.A. Under the American Baptist Mission Union. President—E. W. Kelly, M.A., Ph.D. Vice-President—D. Gilmore, M.A. Number of students in B.A. Class, 5. Number of B.A. passes in 1912–13, 3.

SIBPUR, *Civil Engineering College.* Affiliated up to B.E. Under the control of the Director of Pub. Instrn. The only Coll. affiliated in Engin. 40 admissions are made yearly. There is a Dept. of Dyeing and Tinctorial Chem. Principal—B. Heaton. *Engin. Dept.* Professors: *Civil Engin. and Surveying*—T. H. Richardson, B.A., B.A.I. Dub. *Elec. and Mech. Engin.*—W. H. Everett, B.A., B.E. R.U.I., M.I.M.E., M.I.E.E. *Elec. Engin.*—B. C. Gupta. *Mech. Engin.*—A. J. Rayner. *Mining*—E. H. Robertson, B.A. (Hon.), M.Sc. Bir., M.I.E.E., F.G.S. *Maths.*—B. B. Banerjee, M.A. *Chem.*—Kamadacharan Chakrabarti, M.A. *Phys.*—A. Macdonald, M.A. Asst. Prof. of *Drawing*—J. V. Francis. And 3 Demrs. and Assts.

Tinctorial Dept. Prof. of *Tinctorial Chem.*—R. N. Sen, M.A. Cal., M.Sc. Leeds, F.C.S., Dipl. in Dyeing, Leeds. And an Asst.

Number of students, 50. Passes in 1912–13, 46.

UNIVERSITY OF CALGARY

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CHAIRMAN OF THE BOARD OF GOVERNORS	T. H. BLOW, M.D.
THE FACULTY	DEAN BRAITHWAITE, B.A., B.D., A.M. and Ph.D. Prof. MACDOUGALL, M.A., Ph.D. Prof. EASTMAN, B.A., Ph.D.

[No returns received.]

UNIVERSITY OF CAMBRIDGE

[Incorporated under 13th Eliz. c. 29, in 1570. New Code of Statutes approved by Queen in Council, 1882.]

Chancellor	Rt. Hon. John William Strutt, Baron Rayleigh, O.M., M.A., Hon. Sc.D. Trin.
Vice-Chancellor	M. R. James, Litt.D. King's.
High Steward	Rt. Hon. Thomas de Grey, Baron Walsingham, LL.D. Trin.
Deputy High Steward	Rt. Hon. Lord Justice Sir William Rann Kennedy, M.A. Pemb.
Representatives in Parliament	J. F. P. Rawlinson, K.C., LL.M. Trin. Prof. Sir Joseph Larmor, M.A. Joh.
Proctors	F. J. Dykes, M.A. Trin. S. Gaselee, M.A. Magd.
Pro-Proctors	T. R. Glover, M.A. Joh. T. W. Crafer, M.A. Jes.
Additional Pro-Proctors	F. H. A. Marshall, Sc.D. Chr. J. C. Lawson, M.A. Pemb.
Public Orator	Sir John E. Sandys, Litt.D. Joh.
Registrary	J. N. Keynes, Sc.D. Pemb.
Librarian	F. J. H. Jenkinson, M.A. Trin.

HEADS OF COLLEGES

Christ's	*Master*	A. E. Shipley, Sc.D.
Clare	,,	E. Atkinson, D.D.
Corpus Christi	,,	R. T. Caldwell, LL.D.
Downing	,,	F. H. Marsh, Sc.D., M.C.
Emmanuel	,,	P. Giles, Litt.D.
Gonville and Caius	,,	H. K. Anderson, M.D.
Jesus	,,	A. Gray, M.A.*
King's	*Provost*	M. R. James, Litt.D.
Magdalene	*Master*	S. A. Donaldson, D.D.
Pembroke	,,	W. S. Hadley, M.A.
Peterhouse	,,	Sir A. W. Ward, Litt.D.
Queens'	*President*	T. C. Fitzpatrick, M.A.

* Elected 1913, *vice* H. A. Morgan, deceased.

St. Catharine's	*Master*	C. H. W. Johns, Litt.D
St. John's	,,	R. F. Scott, M.A.
Sidney-Sussex	,,	C. Smith, M.A.
Trinity	,,	H. M. Butler, D.D.
Trinity Hall	,,	E. A. Beck, M.A.
Selwyn (Public Hostel)	,,	J. O. F. Murray, D.D.

Censor of Non-Collegiate Students—W. F. Reddaway, M.A. King's.

RECOGNIZED COLLEGES FOR WOMEN

Girton	*Mistress*	Miss E. E. C. Jones.
Newnham	*Principal*	Miss Stephen.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE (v. also *Forestry*)
WOOD, T. B., M.A.CAI. Drapers Prof.
MACKENZIE, K. J. J., M.A. CHR. Lectr.
FAY, C. R., M.A. CHR. Gilbey Lectr.
Agric. Botany
BIFFEN, R. H., M.A. CATH. Prof.
Agric. Physiology [Lectr.
MARSHALL, F. H. A., SC.D. CHR.

ANATOMY (v. also *Zool.*)
MACALISTER, A., M.D. JOH. Prof.
Human Anatomy
DUCKWORTH, W. L. H., M.D., SC.D. JES. (Lectr. in *Phys. Anthrop.*) Senr. Demr.
ROGERS, G. F., M.D. CAI. Junr. Demr.
KEMPSON, F. C., M.A. CAI. Demr.
CLARKSON, E. R. T., M.A. SELW. Addl. Demr.
REID, D. G., M.B. EDIN., TRIN. ,,
Human Anat., Advanced [Lectr.
BARCLAY-SMITH, E., M.D. DOWN.

ANTHROPOLOGY, v. *Ethnol.*

ARCHÆOLOGY [Prof.
RIDGEWAY, W., SC.D. CAI. Disney (v. also *Class. A.* and *Palæog.*)

ART [Fine Art.
PRIOR, E. S., M.A. CAI. Slade Prof. of

ASTRONOMY [Plumian Prof.
EDDINGTON, A. S., M.A. TRIN.
Astron. and Geometry
VACANT Lowndean Prof.
Astrophysics
NEWALL, H. F., M.A. TRIN. (Dir. of Solar Phys. Obs.) Prof.
STRATTON, F. J. M., M.A. CAI. Asst. and Lectr.
WILSON, C. T. R., M.A. SID. Meteor. Phys. Observer.
BAXANDALL, F. E., A.R.C.SC. Solar Physics Observer.
BUTLER, C. P., A.R.C.SC. ,,
ROLSTON, W. E. ,,
MOSS, W. ,,

BIBLIOGRAPHY, Palæog., &c.
LOEW, E. A., PH.D. Sandars Reader.

BIOLOGY [Quick Prof.
NUTTALL, G. H. F., SC.D. MAGD.
HINDLE, E., B.A. MAGD. Asst.

BOTANY (v. also *Palæobot.*)
SEWARD, A. C., M.A. JOH. Prof.
BLACKMAN, F. F., M.A. JOH. Reader.
TANSLEY, A. G., M.A. TRIN. Lectr.
GREGORY, R. P., M.A. JOH. Lectr.
BROOKS, F. T., M.A. EMM. Senr. Demr.
VACANT Junr. Demr.

CHEMISTRY (v. also *Metall., Physiol.*)
POPE, W. J., M.A. SID. Prof.
READ, J., M.A. EMM. Asst.

SELL, W. J., SC.D. CHR. Lectr. and Demr.
FENTON, H. J. H., SC.D. CHR. Lectr. and Addl. Demr.
DOOTSON, F. W., M.A. TRIN. H. 2nd Addl. Demr.

Chemistry, Organic
RUHEMANN, S., M.A. CAI. Lectr.

Chem. and Phys. for Hygiene, &c.
PURVIS, J. E., M.A. JOH. AND CORP. Lectr.

CLASSICAL ARCHÆOLOGY
COOK, A. B., M.A. QU. Reader.

CLASSICS (v. also *Langs.*)
PROF. RIDGEWAY (*Archæol*). Brereton Reader.

Classics, Epigraphy, and Dialects
CAMPBELL, S. G., M.A. CHR. Lectr.

DIVINITY (v. also *Langs.—Aramaic, &c.; Religion*)
STANTON, V. H., D.D. TRIN. Ely Prof.
BARNES, W. E., D.D. PET. Hulsean Prof.
BETHUNE-BAKER, J. F., D.D. PEMB. Lady Margaret Prof.
BURKITT, F. C., M.A. TRIN. Norrisian Prof.
SWETE, H. B., D.D. CAI. Reg. Prof.

Eccles. Hist.
GWATKIN, H. M., M.A. EMM. Dixie [Prof.

Pastoral Theology
GREEN, PETER, M.A. JOH. Lectr.

EDUCATION
FLETCHER, S. S. F., M.A. KING'S [Lectr.*

ENGINEERING
PEAKE, A. H., M.A. JOH. Senr. Demr.
LANDON, J. W., M.A. SID. ,,
PEEL, T., M.A. MAGD. ,,

Electrical Engineering
LAMB, C. G., M.A. CLARE Lectr.

Mechanical Engineering
INGLIS, C. E., M.A. KING'S Lectr.

Mechanism and Appl. Mechanics.
HOPKINSON, B., M.A. TRIN. Prof.

ETHNOLOGY
HADDON, A. C., SC.D. CHR. Reader.

FORESTRY
DAWSON, W., M.A. ABERD. Reader.
HANKINS, C. Adviser.
BURDON, E. R., M.A. SID. Investigator in Timber.
LONG, A. P., B.A. JOH. Asst.

GENETICS
PUNNETT, R. C., M.A. CAI. Arthur [Balfour Prof.

GEOGRAPHY, Historical and Economic
OLDHAM, H. Y., M.A. KING'S Lectr.

Regional and Physical
LAKE, P., M.A. JOH. R.G.S. Lectr.
(v. also *Surveying and Cartog.*)

GEOLOGY (v. also *Mineral., Palæobot., Palæozool.*)
HUGHES, T. MCK., M.A. CLARE Woodwardian Prof.
REED, F. R. C., SC.D. TRIN. Asst.
MARR, J. E., SC.D. JOH. Lectr.
RASTALL, R. H., M.A. CHR. Addl. Demr.

Petrology
HARKER, A., M.A. JOH. (Demr. in *Geol.*) Lectr.
FEARNSIDES, W. G., M.A. SID. Demr.

HISTORY (v. also *Div.*)

Ancient History
REID, J. S., LITT.D. CAI. Prof.
GLOVER, T. R., M.A. JOH. Lectr.

Indian History
MORIARTY, G. B., M.A. PEMB. [Teacher.†

Modern History
BURY, J. B., M.A. KING'S Prof.
ROSE, J. H., LITT.D. CHR. Reader.

HYGIENE (v. also *Chem.*)
GRAHAM-SMITH, G. S., M.D., M.A. PEMB. Lectr.

* Apptd. by Teachers' Training Syndicate.
† Apptd. by Spl. Board of I.C.S. Studies.

LANGUAGES and Literature (v. also *Philol.*)

Anglo-Saxon

CHADWICK, H. M., M.A. CLARE Elrington and Bosworth Prof.

Arabic [Sir T. Adams Prof.

BROWNE, E. G., M.A., M.B. PEMB.

BEVAN, A. A., M.A. TRIN. Lord Almoner's Prof.

SHAYKH AHMAD ABDUH KHAYRU'D-DIN Teacher.*

Aramaic

MC LEAN, N., M.A. CHR. Lectr.

Bengali

ANDERSON, J. D., M.A. CAI. Teacher.†

Burmese

GOSS, L. ALLAN, M.A. Teacher.†

Chinese

GILES, H. A., M.A. TRIN. Prof.

English

MACAULAY, G. C., M.A. TRIN. Lectr.

English Lit. [K. Ed. VII. Prof.

QUILLER-COUCH, SIR A. T., M.A. JES.

German [Schröder Prof.

BREUL, K., LITT.D. KING'S

QUIGGIN, E. C., M.A. CAI. Lectr.

Greek (v. also *Classics*)

JACKSON, H., O.M., LITT.D. TRIN. Reg. Prof.

Hebrew

KENNETT, R. H., D.D. QU. Reg. Prof.

Hindustani [Teacher.†

PHILLOTT, LIEUT.-COL. DE C.

Italian [Teacher.‡

PICCOLI, R., D.LITT. PADUA

Latin (v. also *Classics*)

HOUSMAN, A. E., M.A. TRIN. Kennedy Prof.

Literature

WARREN, T. H., LITT.D. OX. Leslie Stephen Lectr.

Marathi

DODERET, W. Teacher.†

Persian [Lectr.

NICHOLSON, R. A., LITT.D. TRIN.

Portuguese, v. *Spanish*

Romance [Reader.

BRAUNHOLZ, E. G. W., M.A. KING'S

Russian

GOUDY, A. P., M.A. Lectr.*

Sanskrit

RAPSON, E. J., M.A. JOH. Prof.

ROUSE, W. H. D., LITT.D. CHR. Teacher.†

Spanish [Teacher.‡

VILLASANTE, J. M., D.L. MADRID

Span. or Portug. Lang. or Lit.

FITZMAURICE-KELLY, J., F.B.A. Norman Maccoll Lectr.

Talmudic

ABRAHAMS, I., M.A. CHR. Reader.

Tamil

WYATT, J. L., M.A. CHR. Teacher.†

Turkish

Ali Riza Bey Teacher.*

LAW [Downing Prof.

KENNY, C. S., LL.D. DOWN.

Civil Law

VACANT Reg. Prof.

English Law

HAZELTINE, H. D., M.A. EMM. Reader.

Indian Law

MACLEOD, R. H. Teacher.†

Internat. Law [Whewell Prof.

OPPENHEIM, L., M.A. TRIN.

LOGIC, see *Philos.*

MATHEMATICS

LARMOR, SIR JOSEPH, M.P., M.A. JOH. Lucasian Prof.

BAKER, H. F., SC.D. JOH. Cayley Lectr.

BROMWICH, T. J. I'A., SC.D. JOH. Lectr.

GRACE, J. H., M.A. PET. Lectr.

HERMAN, R. A., M.A. TRIN. Lectr.

RICHMOND, H. W., M.A. KING'S ,,

Pure Maths. [Sadleirian Prof.

HOBSON, E. W., SC.D. CHR.

* Apptd. by For. Service Students' Committee.
† Apptd. by Spl. Board of I.C.S. Studies.
‡ Apptd. by Spl. Board for Med. and Mod. Langs.

MEDICINE and Surgery (v. also *Hygiene*)

Medical Entomology

WARBURTON, C., M.A. CHR. Demr.

Medical Jurisprudence

ANNINGSON, B., M.D. CAI. Lectr.

Medicine [Downing Prof.

BRADBURY, J. B., M.D. DOWN.

DIXON, W. E., M.A. DOWN. Asst.

LLOYD-JONES, E., M.D. DOWN. Demr.

Pathology [Prof.

WOODHEAD, G. SIMS, M.A. TRIN. H.

COBBETT, L., M.D. TRIN. Lectr.

Pathology, Special

STRANGEWAYS, T. S. P., M.A. JOH. (Demr. in *Path.*) Huddersfield Lectr.

Pharmacology

DIXON, W. E., M.A. DOWN. Lectr.

Physic

ALLBUTT, SIR T. CLIFFORD, K.C.B., M.D. CAIUS Reg. Prof.

Surgery [Prof.

MARSH, F. H., SC.D., M.C. DOWN.

RODERICK, H. B., M.D. EMM. Demr.

Vaccination [Teacher.

DEIGHTON, F., M.A., M.B. PET.

METALLURGY

HEYCOCK, C. T., M.A. KING'S Goldsmiths' Reader.

MILITARY Studies [Director.

SCHARLIEB, LIEUT.-COL. W. K.

LEGGETT, CAPT. R. A. C. L. Lectr.

COLLEN, MAJOR E. H. E., D.S.O. ,,

MINERALOGY

LEWIS, W. J., M.A. TRIN. Prof.

HUTCHINSON, A., M.A. PEMB. Demr.

MUSIC

STANFORD, SIR CHARLES V., MUS.D. TRIN. Prof.

Form and Analysis

ROOTHAM, C. B., MUS.D. JOH. Lectr.

Harmony and Counterpoint

WOOD, C., M.A., MUS.D. CAI. Lectr.

ORIENTAL LANGS., v. *Lang. and Lit.*

PALÆOBOTANY

ARBER, E. A. N., SC.D. TRIN. Demr.

PALÆOGRAPHY (v. also *Bibliog.*)

MINNS, E. H., M.A. PEMB. Lectr.

PALÆOZOOLOGY

WOODS, H., M.A. JOH. Lectr.

PHILOLOGY, Comparative

GILES, P., LITT.D. EMM. Reader.

PHILOSOPHY (v. also *Psych.*, *Relig.*)

Mental Philos. and Logic

WARD, J., SC.D. TRIN. Prof.

Moral Philos.

SORLEY, W. R., LITT.D. KING'S Knightbridge Prof.

Moral Science

MOORE, G. E., LITT.D. TRIN. Lectr.

JOHNSON, W. E., M.A. KING'S Sidgwick Lectr.

PHYSICS, Experimental

THOMSON, SIR J. J., O.M., M.A. TRIN. Cavendish Prof.

SEARLE, G. F. C., SC.D. PET. Lectr. and Demr.

WILSON, C. T. R., M.A. SID. ,,

BEDFORD, T. G., M.A. SID. Addl. Demr.

CROWTHER, J. A., M.A. JOH. Asst.

THIRKILL, H., M.A. CLARE Asst.

Nat. Exper. Philos. [sonian Prof.

DEWAR, SIR JAMES, M.A. PET. Jack-

MILLS, W. H., M.A. JES. Demr.

(v. also *Chem.* and *Engin.—Mech.*)

PHYSIOLOGY (v. also *Agric.*)

LANGLEY, J. N., SC.D. TRIN. Prof.

HARDY, W. B., M.A. CAI. Lectr.

ANDERSON, H. K., M.D. CAI. Lectr.

BARCROFT, J., M.A. KING'S Senr. Demr.

COLE, S. W., M.A. TRIN. Junr. Demr.
LUCAS, K., SC.D. TRIN. Addl. Demr.
MINES, G. R., M.A. SID. ,,

Advanced Physiology
GASKELL, W. H., M.A., M.D. TRIN. H. Lectr.
SHORE, L. E., M.A., M.D. JOH. ,,

Chemical Physiology
HOPKINS, F. G., M.A. TRIN. Reader.

Physiol. of the Senses
RIVERS, W. H. R., M.A. JOH. Lectr.

POLITICAL ECONOMY
PIGOU, A. C., M.A. KING'S Prof.

Economics [Girdlers' Lectr.
KEYNES, J. M., M.A. KING'S
LAYTON, W. T., M.A. CAI. Lectr.

PSYCHOLOGY, Exper. (v. also *Physiol.*)
MYERS, C. S., M.D., SC.D. CAI. Director of the Psych. Lab.
BURT, C., M.A. OX. Asst.
VACANT Demr.

RELIGION, Philosophy of
OMAN, J. W., M.A. QU. Lectr.

STATISTICS
YULE, G. UDNY, M.A. JOH. Lectr.

SURVEYING and Cartography
WRIGHT, C. S., M.A., B.SC. Lectr.

ZOOLOGY and Comp. Anat.
GARDINER, J. S., M.A. CAI. Prof.

Advanced Morph. of Vertebrates
GADOW, H. F., M.A. KING'S Lectr.

Animal Embryology
ASSHETON, R., M.A., SC.D. Lectr.

Animal Morphology
COOPER, C. F., M.A. TRIN. Demr.

Comparative Anatomy
SAUNDERS, J. T., M.A. CHR. Demr.

Zoology (v. also *Agric., Med. Entom., Palæozool.*)
SHIPLEY, A. E., SC.D. CHR. Reader.
SHEARER, C., M.A. CLARE Lectr.
BORRADAILE, L. A., M.A. SELW. ,,

CHANGES IN STAFF

Benians, E. A., appointed Local Adviser of Indian Students.
Candy, Sir Edward T., Teacher in Indian Law, deceased.
Chadwick, H. M., elected *vice* Skeat.
Clarkson, E. R. T., apptd. *vice* Manners-Smith.
Collen, Major E. H. E., D.S.O., apptd. Lectr. in Milit. Subjects.
Cunliffe, N., apptd. Asst. to Supt. of Museum of Zool.
Darwin, Sir George H., Plumian Prof. of Astron., deceased.
Dawson, W., apptd. *vice* Henry.
Eddington, A. S., Chief Asst., R.O. Greenwich, elected *vice* Darwin.
Grane, W. L., apptd. Hulsean Lectr.
Green, P., apptd. Lectr. in Pastoral Theol.
Hankins, C., apptd. Adviser in Forestry.
Hardy, W. B., apptd. Lectr. in Physiol.
Henry, A., M.A. Cai., Reader in Forestry, resigned on apptmt. to Chair in R.C.Sc.I.
Hindle, E., apptd. Asst. to Quick Prof. of Biol. *vice* Lewin.
Keynes, J. M., re-apptd. Girdlers' Lectr. in Economics.
Loew, E. A., Research Assoc. of Carnegie Inst. of Washington, apptd. Sandars Reader in Bibliography.
Macleod, R. H., apptd. *vice* Candy.
Manners-Smith, T., Addl. Demr. of Human Anat., deceased.
Marshall, F. H. A., apptd. Lectr. in Animal Physiol. (Agric.).

Mills, W. H., apptd. Demr. to Jacksonian Prof. *vice* Jones.
Newall, Prof. H. F., apptd. Dir. of Solar Physics Obs.
Oman, J. W., apptd. Lectr. in Philos. of Religion.
Punnett, R. C., Prof. of Biol., elected first Arthur Balfour Prof. of Genetics.
Quiller-Couch, Sir Arthur T., elected K. Edw. VII Prof. of Engl. Lit. *vice* Verrall.
Saunders, J. T., apptd. Demr. of Compar. Anat.
Scharlieb, Lieut.-Col. W. K., apptd. Dir. of Milit. Studies.
Searle, W. G., Hon. Keeper of Coins in Fitzwilliam Museum, deceased.
Shearer, C., Lectr. on Exper. Morphol., apptd. Lectr. in Zool.
Skeat, W. W., Elrington and Bosworth Prof. of Anglo-Saxon, deceased.
Stratton, F. J. M., Asst. in Astrophysics, apptd. Lectr. in Astrophysics and Asst. Dir. of Solar Physics Obs.
Warren, T. H., President of Magd. Coll., Ox., apptd. Leslie Stephen Lectr.

THE COLLEGES

[Fellows who are also Univ. Profs. are not included in the following lists.]

CHRIST'S COLLEGE. Founded 1448. Master—A. E. Shipley, Sc.D., F.R.S., † *Nat. Sciences and Med.*

Fellows: Campbell, S. G., M.A., ‡ *Classics*; Cartmell, J. W., M.A., † *Med. and Mod. Langs.*; Elmslie, W. A. L., M.A.; Fay, C. R., M.A., † ‡ *Hist.* and *Econ.*; Haddon, A. C., Sc.D., F.R.S.; * McLean, N., M.A., † *Orient. Langs.* and *Moral Sciences*, ‡ *Hebrew*; * Marshall, F. H. A., Sc.D., † *Agric.*; Mercer, J., M.A., ‡ *Maths.*; * Rackham, H., M.A., Senior Tutor, † *I.C.S. Studies*, ‡ *Classics*; Valentine-Richards, A. V., M.A., Dean, ‡ *Theol.*

Other Lecturers: Harris, D. L., M.A., Down., *Law*; Rastall, R. H., M.A., *Nat. Science.*

CLARE COLLEGE. Founded 1326. Master—E. Atkinson, D.D.

Fellows: Beck, F. G. M., M.A., ‡ *Classics* and *Hist.*; Crick, P. C. T., M.A., Dean, ‡ *Classics* and *Theol.*; Gardiner, W., M.A., Sc.D., F.R.S., Bursar; * Mollison, W. L., M.A., ‡ *Maths. and Mech. Sciences*; Roberts, Ff., B.A., M.B., Supervisor of Med. Students; Thirkill, H., B.A., ‡ *Phys. and Chem.*; * Wardale, J. R., M.A., ‡ *Classics*; Wilson, G. H. A., M.A., ‡ *Maths.*

Other Lecturers: Brindley, H. H., M.A., Joh., *Biol., Zool., and Physiol.*; Higgins, A. P., LL.D., Down., *Law.* There are also Supervisors in *Bot., Geol., Histr., and Engin.*

CORPUS CHRISTI COLLEGE. Founded 1352. Master—Col. R. T. Caldwell, LL.D.

* Tutor. † Director of Studies. ‡ Lecturer.

Fellows: Archdall, H. K., B.A., ‡ *Theol.*; Butler, G. G. G., M.A., † ‡ *Hist.*; Moule, C. W., M.A.; Pearce, E. C., M.A., Dean; Pollock, C. A. E., M.A., Bursar, ‡ *Maths.*; * Spens, W., M.A., † ‡ *Nat. Science*; Streane, A. W., D.D.; von Glehn, L. C., M.A., † *Mod. Langs.*

Other Lecturers and Directors of Studies: Butler, R. L., M.A., ‡ *Classics*; Fay, C. R., M.A., Chr., † *Econ.*; Peel, T., M.A., Magd., † *Mech. Science.*

Downing College. Founded 1800. Master—Prof. Howard Marsh. M.A., Sc.D., M.C.

Fellows: Amos, A., M.A., Bursar, § *Agric. Science*; Aston, W. D., LL.M., § *Law*; Berry, A. J., M.A., § *Chem. and Physics*; Green, J. R., Sc.D., F.R.S., § *Bot.*; Harris, D. L., M.A., § *Law*; Saunders, J. C., M.A.; * Widdicombe, J. H., M.A., Dean, § *Physiol.*

Other Lecturers and Supervisors: Appleton, A. B., B.A., *Anat.*; Crafer, T. W., B.D., *Theol. and Classics*; French, C. H., M.A., *Maths.*; Green, G. E., M.A., Cai., *Hist.*; Johnson, W. E., M.A., *Mor. Science*; Layton, W. T., M.A., Cai., *Econ.*; Rottenburg, H., M.A., King's, *Engin.*; Webb, H. A., M.A., Trin., *Maths.*; Wyatt, A. J., M.A., Chr., *Med. and Mod. Langs.*

Emmanuel College. Founded 1584. Master—Peter Giles, Litt.D.

Fellows: Allcock, W. B., M.A., ‡ *Maths.*; Bennett, G. T., M.A., Asst. Tutor, ‡ *Maths.*; temporarily vacant, ‡ *Hebrew*; Day, G. R., B.A., ‡ *Hist.*; * Greenwood, L. H. G., M.A., ‡ *Classics*; Hazeltine, H. D., M.A., ‡ *Law*; * Head, F. W., M.A., ‡ *Hist.*; Hele, T. S., M.D., ‡ *Nat. Sciences*, Director of Students in *Anat. and Physiol.*; Marshall, F. H., M.A., ‡ *Classics*; Peace, J. B., M.A., Bursar, Director of Students in *Mech. Sciences*; Phear, S. G., D.D.; Rose, A., M.A.; Raven, C. E., M.A., Dean, ‡ *Div.*; * Wood, A., M.A., ‡ *Nat. Sciences*; * Wood, P. W., M.A., ‡ *Maths.*

Other Lecturers: Lamb, W. R. M., M.A., Trin., *Classics*; Naylor, E. W., Mus.D., *Music.*

Other Directors of Students: Brindley, H. H., M.A., Joh., *Biol. and Zool.*; Fay, C. R., M.A., Chr., *Econ.*; Johnson, W. E., M.A., King's, *Mor. Sciences*; Moss, C. E., B.A., *Bot.*; Read, J., M.A., *Chem.*; Vernon, R. D., B.A., *Geol.*; Wyatt, A. J., M.A., Chr., *Mod. Langs.*

Gonville and Caius College. Founded 1348. Master—H. K. Anderson, M.D., F.R.S. President—J. Venn, Sc.D., F.R.S.

Fellows: Brooke, Z. N., M.A., ‖ *Hist.*; * Buckland, W. W., M.A., ‖ *Law*; Bullough, E., M.A.; * Cameron, J. F., M.A., ‖ *Maths.* and *Engin.*; Compton, R. H., M.A.; Fryer, J. C. F., M.A.; Gallop, E. G., M.A., ‖ *Maths.*; Gross, E. J., M.A.; * Hardy, W. B., M.A., ‖ *Physiol.*; Layton, W. T., M.A., ‖ *Econ.*; Lendrum, W. T., M.A., ‖ *Classics*; Lock, J. B., M.A., Bursar; McNair, A. D., LL.M., ‖ *Law*; Quiggin, E. C., M.A., ‖ *Modern and Celtic Langs.*; Stratton, F. J. M., M.A., ‖ *Maths.*; Wood, C., Mus.D., ‖ *Music.*

* Tutor. † Director of Studies. ‡ Lecturer.
§ Lecturer and Supervisor. ‖ Lecturer and Director of Studies.

Other Lecturers, Assistant Lecturers, and Directors of Studies: Brindley, H. H., M.A., Joh., *Biol.*; Cook, S. A., M.A., *Heb. and Syriac*; Cooper, C. F., M.A., Trin., *Zool.*; d'Arcy, R. F., M.A., *Physics*; Green, G. E., M.A., *Hist.*; Johnson, W. E., M.A., King's, *Mor. Sciences and Exper. Psychol.*; Jones, A. S. Duncan, M.A., *Div.*; Myers, C. S., M.D., Sc.D., *Mor. Sciences and Exper. Psychol.*; Roth, G. J., *Lector in French*; Walker, W. W., M.A., Chr., *Classics*.

Jesus College. Founded 1496. Master—Arthur Gray, M.A., Lectr. in *Classics*.

Fellows: Abbott, E., M.A., ‡ *Classics*; Cockerell, S. C., M.A.; Duckworth, W. L. H., M.D., Sc.D., Asst. Tutor, ‡ *Nat. Sciences*; Duke, W. H., M.A., ‡ *Classics*; Elliott, C. A., M.A., Asst. Tutor, ‡ *Hist.*; Foakes-Jackson, F. J., D.D., Asst. Tutor, ‡ *Theol.*; Goodwin, J. H. H., M.A., ‡ *Maths.*; Mills, W. H., M.A., † *Chem. and Physics*; Watt, J. C., M.A., ‡ *Maths.*; * Welsh, W., M.A., ‡ *Maths.*

Other Directors of Studies: Alston, L., M.A., Chr., *Econ.*; Braunholtz, E. G. W., M.A., King's, *Mod. Langs.*; Fay, C. R., M.A., Chr., *Econ.*; Landon, J. W., M.A., Sid., *Mech. Sciences*; Rendell, W. R., M.A., Trin. H. and Jes., *Law*; Wyatt, A. J., M.A., Chr., *Mod. Langs.*

King's College. Founded 1441. Provost—M. R. James, Litt.D., F.B.A. Vice-Provost—W. Durnford, M.A.

Fellows: Adcock, F. E., M.A., ‡ *Classics*; Barcroft, J., M.A., F.R.S., ‡ *Nat. Sciences*; Berry, A., M.A., ‡ *Maths.*; Brooke, A. E., D.D., Dean, ‡ *Div.*; Chawner, G., M.A.; Clapham, J. H., M.A., Dean, ‡ *Hist. and Econ.*; Corbett, W. J., M.A., Bursar; Dickinson, G. L., M.A., ‡ *Hist. and Econ.*; Dobbs, A. E., M.A.; Doncaster, L., Sc.D.; Grant, C. E., M.A., Bursar; Heycock, C. T., M.A., F.R.S., ‡ *Nat. Sciences*; Inglis, C. E., M.A., ‡ *Mech. Sciences*; Johnson, W. E., M.A.; Keynes, J. M., M.A., ‡ *Hist. and Econ.*; Knox, A. D., M.A.; * Macaulay, W. H., M.A.; Nixon, J. E., M.A., ‡ *Classics*; Reddaway, W. F., M.A., ‡ *Hist. and Econ.*; Richmond, H. W., M.A., F.R.S., ‡ *Maths.*; Richmond, O. L., M.A., ‡ *Classics*; Sheppard, J. T., M.A., ‡ *Classics*; Sills, H. H., M.A., ‡ *Classics*; Tilley, A. A., M.A., ‡ *Mod. Langs.*

Magdalene College. Founded 1519. Master—S. A. Donaldson, D.D., Dean. President—A. C. Benson, M.A., C.V.O.

Fellows: Benson, A. C., M.A.‡; Gaselee, S., M.A.‡; Jones, V. S. Vernon, M.A.‡; Peel, T., M.A.‡; Peskett, A. G., M.A.‡; * Ramsey, A. S., M.A., Bursar ‡; Salter, F. R., M.A.‡

Pembroke College. Founded 1347. Master—W. S. Hadley, M.A., Lectr. in *Classics* and *Mod. Hist.* President—Prof. E. G. Browne, M.A., M.B.

Fellows: Birtwistle, G., M.A., ‡ *Maths.*; Comber, H. G., M.A., ‡ *Mod. Langs.*; Hutchinson, A., M.A., ‡ *Nat. Sciences*; * Lawson, J. C., M.A., ‡ *Classics* and *Mod. Greek*; Mozley, J. K., M.A., Dean, ‡ *Div.*; Seaton, A. A., M.A., ‡ *Mod. Hist.*; Spittle, J. T., M.A., ‡ *Mech. Sciences*; Whibley, L., M.A., ‡ *Classics and Anc. Hist.*, Bursar.

* Tutor. † Director of Studies. ‡ Lecturer.

Other Lecturers: Grace, J. H., M.A., Pet., *Maths.*; Minns, E. H., M.A., *Russian*; Rendell, W. R., M.A., Jes. and Trin. H., *Law*; Ziegler, C. H., B.A., *Law*.

PETERHOUSE (or ST. PETER'S COLLEGE). Founded 1284. Master—Sir A. W. Ward, Litt.D., F.B.A.

Fellows: Clayton, G. H., M.A., Dean, Supervisor of Theol. Studies; Dickson, J. D. H., M.A., F.R.S.E.; Dodds, J. M., M.A., ‡ *Maths.*, Senior Bursar; * Edwards, H. J., M.A., ‡ *Classics*; Searle, G. F. C., Sc.D., F.R.S.; Temperley, H. W. V., M.A., ‡ *Hist.*; Walker, T. A., M.A., LL.D., Junior Bursar.

Other Lecturers, &c.: Bedford, T. G., M.A., Sid., † *Nat. Science*; Grace, J. H., M.A., F.R.S., ‡ *Maths.*; Winfield, P. H., M.A., Joh., Supervisor of Law Studies.

QUEENS' COLLEGE. Founded 1448. President—T. C. Fitzpatrick, M.A., † *Nat. Sciences*. Vice-President—* A. Wright, D.D.

Fellows: Cook, A. B., M.A., ‡ *Classics*; * Gray, J. H., M.A., ‡ *Classics*; Laffan, R. D., M.A., ‡ *Engl. Hist. and Lit.*; Munro, A., M.A., Bursar, ‡ *Maths.*, † *Mech. Science*; Sleeman, C. M., M.A., Bursar, † *Nat. Sciences*; Wood, C. T., M.A., Dean, ‡ *Div.* and *Hebrew*; Wright, A., D.D., ‡ *Div.*

Other Directors of Studies: Higgins, A. P., LL.D., Down., *Law*; von Glehn, L. C., M.A., *Mod. Langs.*

ST. CATHARINE'S COLLEGE. Founded 1473. Master—C. H. W. Johns, Litt.D. President—E. T. S. Carr, M.A., Bursar.

Fellows: * Spratt, A. W., M.A., Dean, ‡ *Classics*; * Southward, W. T., M.A., Mus.B., ‡ *Theol.* and *Music*; * Rushmore, F. M., M.A., ‡ *Hist.*; Jones, W. H. S., M.A., ‡ *Classics* and *Anc. Hist.*

Other Lecturers and Directors of Studies: Ellis, W. G. P., M.A., M.D., † *Med.* and *Bot.*; Hinde, G. M., M.A., † *Mod. Langs.*; Reynolds, J. W., B.A., Sid. and Trin., † *Hist.*; Spurge, C., M.A., ‡ *Maths.*; Srawley, J. H., D.D., ‡ *Theol.*; Sutton, E. W., M.A., ‡ *Law*.

ST. JOHN'S COLLEGE. Founded 1511. Master—R. F. Scott, M.A. President—G. D. Liveing, Sc.D.

Fellows: Baker, H. F., Sc.D., F.R.S., † ‡ *Maths.*; Benians, E. A., M.A., ‡ *Hist.*; Besant, W. H., Sc.D., F.R.S.; Blackman, F. F., M.A., F.R.S.; Bonney, T. G., Sc.D., B.D., F.R.S., F.S.A., F.G.S.; Bromwich, T. J. I'A., Sc.D., ‡ *Maths.*; * Bushe-Fox, L. H. K., M.A., LL.M., † ‡ *Law*; Campbell, A. Y., M.A., ‡ *Classics*; Cox, W. A., M.A.; Crowther, J. A., M.A.; Cunningham, E., M.A., ‡ *Maths.*; Foxwell, H. S., M.A., † *Economics*; Glover, T. R., M.A., ‡ *Classics*; Graves, C. E., M.A.; * Gregory, R. P., M.A., † *Nat. Sciences*, and Supervisor in *Botany*; Harker, A., M.A., F.R.S., F.G.S.; Hart, J. H. A., M.A., † ‡ *Theol.*; Heitland, W. E., M.A.; Leathem, J. G., M.A., Senior Bursar; Lister, J. J., M.A., F.R.S., Supervisor in *Zool.*; Marr, J. E., Sc.D., F.R.S., ‡ *Nat. Sciences*, and Supervisor in *Geol.*; Previté-Orton,

C. W., M.A.; Rivers, W. H. R., M.A., †*Moral Science*; Russell-Smith, H. F., M.A., ‡ *Hist.*; Sandys, Sir John E., Litt.D., F.B.A.; Shore, L. E., M.D., † *Med.*, and Supervisor in *Physiol.*, Junior Bursar; * Sikes, E. E., M.A., † ‡ *Classics*; Stevens, A. J., M.A.; Stewart, H. F., B.D., Dean, † ‡ *Mod. Langs.*; Tanner, J. R., Litt.D., Tutorial Bursar, † *Hist.*, and Honorary Lectr.; Ward, J. T., M.A.; Whiddington, R., M.A.

Other Directors of Studies and Lecturers: Adie, R. H., M.A., Trin. and Joh., ‡ *Nat. Sciences*, Supervisor in *Chem.*; Brindley, H. H., M.A., Supervisor in *Biol.*; Horton, F., M.A., Supervisor in *Phys.*; How, J. C. H., M.A., Joh. and Trin., ‡ *Hebrew*; Moore, Norman, M.D., F.R.C.P., Linacre Lectr. of *Physic*; Peake, A. H., M.A., † *Mech. Sciences*; Smith, E. Barclay, M.D., Supervisor in *Anat.*

SIDNEY SUSSEX COLLEGE. Founded 1596. Master—Charles Smith, M.A.

Fellows: Edwards, G. M., M.A., ‡ *Classical* (Honorary); Fearnsides, W. G., M.A.; Hackforth, R., M.A., ‡ *Classics*; McNeile, A. H., D.D., ‡ *Theol.*, Dean; Mayall, R. H. D., M.A., ‡ *Maths. and Physics*; Mines, G. R., M.A., †*Physiol.*; Reynolds, J. W., M.A., ‡ *Hist.*; Robson, H. C., M.A., Bursar; Shaw, T. K., M.A., Asst. ‡ *Maths.*; * Weekes, G. A., M.A., Asst. Lectr. *Classics and Theol.*

Other Directors of Studies: Landon, J. W., M.A., *Mech. Sciences*; Scorgie, N. G., M.A., LL.B., Trin., *Law*; Wyatt, A. J., M.A., Chr., *Med. and Mod. Langs.*

TRINITY COLLEGE. Founded 1546. Master—H. Montagu Butler, D.D. Vice-Master—W. Aldis Wright, M.A.

Fellows: Ball, W. W. R., M.A.; * Barnes, E. W., Sc.D., F.R.S., ‡ *Maths.*; Boughey, A. H. F., M.A.; Capstick, J. W., M.A.; Cornford, F. M., M.A., ‡ *Classics*; Cunningham, William, D.D.; Duff, J. D., M.A., ‡ *Classics*; Dykes, F. J., M.A., ‡ *Mech. Sciences*; *Fletcher, W. M., M.A., M.D., ‡ *Nat. Sciences*, † *Med.*; Frazer, J. G., M.A., F.B.A.; Glaisher, J. W. L., Sc.D., F.R.S.; Gow, A. S. F., M.A.; Hammond, B. E., M.A.; Hardy, G. H., M.A., F.R.S., ‡ *Maths.*; Harrison, E., M.A., ‡ *Classics*; Herman, R. A., M.A., ‡ *Maths.*; Hicks, R. D., M.A.; Hill, A. V., M.A., Junior Dean; Hollond, H. A., M.A., ‡ *Law*; Hopkins, F. G., M.A., F.R.S., Prælector in *Biochem.*; Image, J. M., M.A.; Innes, H. McL., M.A., Senior Bursar; Jenkinson, F. J. H., M.A.; Lapsley, G. T., M.A., ‡ *Mod. Hist.*; * Lawrence, R. V., M.A., ‡ *Mod. Hist.*; Littlewood, J. E., M.A., ‡ *Maths.*; Lucas, K., Sc.D., ‡ *Nat. Sciences*; McTaggart, J. McT. E., Litt.D., ‡ *Mor. Sciences*; Nicholas, T. C., B.A., Sub-lector, *Geol.*; Parry, R. St. J., D.D., ‡ *Theol.*, Senior Dean; Prior, J., M.A.; Robertson, D. S., M.A., ‡ *Classics*; Simpson, F. A., M.A., ‡ *Mod. Hist.*; Stuart, C. E., M.A., ‡ *Classics*; Tatham, G. B., M.A., Junior Bursar; Taylor, G. I., M.A., Sub-lector, *Phys.*; Taylor, H. M., M.A., F.R.S.; Tennant, F. R., D.D., *Theol.*; Watson, G. N., M.A.; * Whetham, W. C. D., M.A.,

F.R.S., ‡ *Nat. Sciences*, Senior Tutor ; Winstanley, D. A., M.A., ‡ *Mod. Hist.* ; Woolf, C. N. S., M.A., Sub-lector in *Hist.*

Other Directors of Studies and Lecturers : Bond, H., LL.D., Trin. H., ‡ † *Law* ; Colvin, Sir Sidney, M.A., Clark Lectr. in *Engl. Lit.* ; Fortescue, Hon. J. W., M.V.O., M.A., Lees Knowles Lectr. in *Military Hist.* ; Keynes, J. M., M.A., King's, † *Econ.* ; Stewart, H. F., B.D., Joh. and Trin., † *Med. and Mod. Langs* ; Poole, R. L., M.A. Ox., Birkbeck Lectr. in *Eccles. Hist.* ; Russell, Hon. B. A. W., M.A., F.R.S., ‡ *Logic and Maths.*

Other Sub-lectors : Alston, L., M.A., Chr., *Econ.* ; Aston, F. W., B.A., *Phys.* ; Bragg, W. L., B.A., *Phys.* ; Bullough, E., M.A., *Mod. Langs.* ; Burkitt, M. C., B.A., *Mineral.* ; Cooper, C. F., M.A., *Zool.* ; Green, J. E. S., M.A., *Hist.* ; Lamplough, F. E. E., M.A., *Chem.* ; Parker, W. H., B.A., *Agric.* ; Robertson, D. H., B.A., *Econ.* ; Scorgie, N. G., M.A., *Law* ; Thomas, H. H., M.A., *Bot.*

TRINITY HALL. Founded 1350. * Master—E. A. Beck, M.A., *Classical* Lectr. Vice-Master—* G. B. Shirres, M.A., *Math.* Lectr.

Fellows : Angus, C. F., M.A., ‡ *Classics* ; Bell, W. G., M.A., ‡ *Maths.* ; Bond, H., LL.D., ‡ *Law* ; Chase, G. A., M.A., ‡ *Div.*, Dean ; Gaskell, W. H., M.D., F.R.S., † *Nat. Science* ; Gaul, P. C., M.A., † *Engin.*, ‡ *Maths.* ; Green, J. E. S., M.A., † *Hist.* ; Potts, F. A., M.A., † *Nat. Science* ; Rendell, W. R., M.A., Bursar, ‡ *Law.*

Director in Agric. Studies : Dootson, F. W., M.A.

SELWYN COLLEGE PUBLIC HOSTEL. Founded 1882. Master—J. O. F. Murray, D.D.

Lectrs. : Borradaile, L. A., M.A., *Nat. Sciences*, † *Med.*, Dean ; * Carpenter, S. C., M.A., ‡ *Theol.* ; Hennessy, T. H., M.A., *Theol.* ; * Jordan, W. E., M.A., *Classics* and *Hist.* ; * Knott, H. C., M.A., *Maths.*, Bursar ; Poole, A. L., B.A. Ox., *Hist.* ; Welch, J. J., B.A., *Maths.* ; Williams, W. N., M.A., LL.B., *Classics*, † *Law* ; Wordsworth, O. B., B.A., *Classics.*

Asst. Lectr. : Brereton, P. H. L., M.A., *Classics* and *Theol.*

Other Directors of Studies : Stewart, H. F., B.D., Joh., *Med. and Mod. Langs.* ; Wood, C., Mus.D., Cai., *Music.*

Supervisor in *Chem.* : Thompson, H. V., B.A., Trin. ; in *Law*, Baker, J. E., B.A., LL.B., Trin. H.

FITZWILLIAM HALL, a house reconstructed in 1892 to serve as the centre of the corporate life of the non-collegiate students, has given its name to their amalgamated clubs and, by usage, to the non-collegiate body as a whole. Non-coll. students were first admitted to the Univ. in 1869. They are governed by the Non-coll. Students' Board, the members of which are appointed by the Senate of the Univ.

Censor : W. F. Reddaway, M.A.

Lecturers : Bell, W. G., M.A., *Maths.* ; Crafer, T. W., B.D., *Classics.*

Asst. Lecturer : Garrett, R. W. B., M.A.

* Tutor. † Director of Studies. ‡ Lecturer.

Directors of Studies: Bell, W. G., M.A., *Mathematics*; Crafer, T. W., B.D., *Theol.*; Dent, E. J., M.A., Mus.B., *Music*; The President of Queens', *Nat. Sciences*; Fox, C., M.A., *Moral Sciences*; Gaskoin, C. J. B., M.A., *Hist.*; Goudy, A. P., M.A., *Med. and Mod. Langs.*; Hill, A. V., M.A., *Med. Studies*; Johnson, E. W., M.A., *Theol.*; Mackenzie, K. J. J., M.A., *Agric.*; Oldham, H. Y., M.A., *Geog.*; Peel, T., M.A., *Mech. Sciences*; Scorgie, N. G., M.A., LL.B., *Law*; Scott, T. F., B.A., *Economics*; Vernon-Jones, V. S., M.A., *Classics*; Williams, T. C. L., M.A., *Hist.*; Wyatt, A. J., M.A., *Med. and Mod. Langs.*

GENERAL INFORMATION

The SENATE, consisting, generally speaking, of all Masters of Arts and Masters of Laws who have retained their membership of the Univ. by the fulfilment of prescribed formalities and payment of proper dues, has full power to legislate for the Univ. subject to the Univ. Statutes, and allows degrees, appoints most of the Univ. officers, and elects the 2 members who represent the Univ. in the House of Commons.

The executive authority of the Univ. rests in theory with the Chancellor, but as he is by custom a non-resident officer, it devolves in practice upon his deputy, the Vice-Chancellor, who is appointed every year from among the Heads of Colleges. With the Vice-Chancellor is associated a Council of 16 members known as the *Council of the Senate*, which is elected under certain restrictions by what is roughly the resident part of the Senate—known as the *Electoral Roll*. This Council, besides its executive position, has also an important position in respect of legislation, as no Grace can be put to the Senate unless it has first received the sanction of the Council. The Univ. appoints *Syndicates* to administer various departments of Univ. business and *Special Boards of Studies* to superintend Univ. teaching and examns. in the various subjects of study. The system of teaching as a whole is under the supervision of a *General Board of Studies*, on which all the more important subjects of study are represented. All proposals involving the spending of money are submitted by the Council to the *Financial Board*.

The COLLEGES are corporate bodies distinct from the Univ. They possess and manage their own property; they are self-governing and elect their own officers; and for nearly all purposes they are independent of Univ. control. The connexion between them and the Univ., however, is of the most intimate kind. The Univ. is in part supported by contributions from them, and without any formal agreement to that effect the Univ. and the Colls. do as a matter of fact recognize each other's regulations. Nearly all the members of the Univ. belong to the Colls., and all the members of the Colls. belong to the Univ. The work of teaching is divided between the Univ. Profs., Lectrs., &c., and the more numerous body of College Lectrs.

MATRICULATION is effected by signing in a register following upon admission as a member of a Coll. or as a Non-Collegiate student; the Univ. does not require any examn. to be passed before Matricn., but an applicant for admission to a Coll. must, in general, satisfy its authorities by passing the Coll. entrance examn. or otherwise that his attainments are sufficient to enable him to pass the Univ. examns. in due course, and ultimately to proceed to a degree. In effect the *Previous Examn.* (*v. infra*) takes the place of the Matricn. examn. of other Univs.

For admission as a member of a Coll. or as a Non-Coll. student application should be made to the proper officer, namely, the Senior Tutor, Cai., Clare, or Queens'; the Tutor, Corp., Down., Pet., Sid., or Trin. H.; the Tutors, Cath.; one of the Tutors, Trin.; the Provost or Tutor, King's; the Master of any of the other Colls.; the Censor, Fitzwilliam Hall (Non-Coll. students). It is important for those who wish to have rooms in Coll. to apply for admission a long time beforehand.

TERMS. Michs. term begins Oct. 1, ends Dec. 19; Lent term begins Jan. 8, ends (in 1914) March 27; Easter term begins (in 1914) April 18, ends June 24.

In order that a term may be counted towards qualifying for a degree, a student must reside in Cambridge (*i.e.* within a circle of 2½ miles radius from Gt. St. Mary's Church) during three-fourths of the term.

INCORPORATION. Students who before admission as members of this Univ. have kept terms by *bona-fide* residence at Ox. or Dub. are, subject to certain provisos, allowed terms corresponding to those which they have so kept; a graduate of Ox. or Dub. who took a degree or degrees after having duly qualified himself therefor not only by having passed the examns., &c., required, but by having kept his terms by residence in his own Univ., may be admitted on certain conditions to the same degree or degrees in Camb.

DEGREES. B.A., M.A., Litt.D., Sc.D.; B.D., D.D.; LL.B., LL.M., LL.D.; M.B. and B.C., M.D., M.C.; Mus.B., Mus.M., Mus.D.

ARTS. The qualifications for the B.A., except for *Research students* (*v. infra*), are: (i) 9 terms residence; (ii) passing the *Previous* examn., Parts I and II, and, for candidates for Honours, in an additional subject; (iii) passing the ordinary degree examns. or (for Honours) a Tripos examn. or examns.

Exemption from (i) to the extent of 3 terms can be obtained by students entitled to the privileges of *affiliation* (*v. infra*).

(ii) The Previous examn. consists mainly of Greek, Latin, and Maths. Subject to certain provisos, natives of Asia or Africa who are not of European parentage may substitute papers in Arabic, Chinese, Sansk., or Pali for the Latin papers, and natives of Asia or Egypt not of European parentage may substitute papers in English for Greek.

Exemption from (ii) can be obtained by students who hold certain

certifs. granted by various Univs. of the U.K., or by the Scotch Education Dept., or gained in Austria-Hungary, France, Germany, Russia, Spain, or Switzerland; such exemption is also granted to students entitled to the privileges of affiliation.

As regards (iii), the ordinary B.A. is obtained by either (1) the General examn. and a special examn., or (2) 2 special examns., or (3) the Prelim. examn. in Science and a special examn. The subjects of the special examns. are Agric. Science, Botany, Chemistry, Classics, Engineering, Geography, Geol., History, Law, Logic, Maths., Military Subjects, Mod. Langs., Music, Physics, Physiol., Pol. Econ., Psychol., Theol., Zool.; and the Honours B.A. is obtained by passing in the following Triposes: Anthropol., Classical, Economics, Hist., Law, Maths., Mech. Sciences, Mediæval and Mod. Langs., Mor. Sciences, Nat. Sciences, Oriental Langs., Theol.

A Bachelor may be admitted *Inceptor* in Arts at the end of six years from the end of his 1st term, provided that not less than 2 yrs. have elapsed from his *inauguration* (which occurs on Dec. 23 or 24 following admission to the title of a degree). The Inceptor is *created* M.A. at the end of the following Easter term.

Divinity. A M.A. or LL.M. proceeds to the B.D. by subscribing certain declarations, preaching a sermon, and, at some time after the expiration of 4 yrs. from his *creation*, submitting an original Latin thesis or satisfactory dissertation and being examined thereon. He is not admitted to the B.D., however, until the 7th yr. from his *creation*. A B.D. of 5 yrs. standing proceeds to the D.D. by similar tests (without submitting to examn., however).

Law. A student who has kept 9 terms and obtained Honours in both parts of the Law Tripos or Honours in some other Tripos and subsequently Honours in either part of the Law Tripos is entitled to the LL.B. as well as the B.A. A graduate who desires the LL.B. must satisfy the examiners for the Law Tripos in both parts or, on certain conditions, in one. A B.A. or LL.B. who has fulfilled certain conditions may be admitted *Inceptor* in Law at the end of 6 yrs. from the end of his 1st term, provided that not less than 2 yrs. have elapsed from his *inauguration*. A M.A. who has fulfilled these conditions may also be admitted Inceptor in Law. A LL.M. who makes an original contribution to the advancement of Science or study of Law may be admitted LL.D. 5 yrs. after *creation*.

Medicine. The qualifications for the M.B. and B.C. are: (i) 9 terms residence; (ii) passing (or exemption from) the *Previous* examn. (*v. supra*); (iii) 5 yrs. Medical study; (iv) passing in due order 3 examns. and presenting an approved thesis. Admission to the 2nd M.B. examn. is conditional on proof of diligent attendance on prescribed courses of lectures and practical work. Admission to the 3rd M.B. is conditional on proof of 3 yrs. of hospl. practice, 5 yrs. Medical study and diligent attendance on prescribed courses of instruction and practical work. A M.B. in the 9th term after *inaugura-*

tion (*v. supra*) and a M.A. in the 12th after *creation* may be admitted *M.D.* on submission of a thesis or dissertation, but the M.A. must have attended lectures and hospl. practice and passed examns. as required for the M.B. A B.C. after 3 yrs. from inauguration may be admitted Inceptor in Surgery and so by creation to the *M.C.* degree. A M.A. may be admitted also if legally qualified to practise Surgery. A candidate for the M.C. must either pass the examn. for the degree or be exempted therefrom in consideration of a contribution to the advancement of the Science or Art of Surgery. Addenbrooke's Hospl., containing 150 beds and large out-patient depts., is available for clinics.

Music. The qualifications for the Mus.B. include (i) 9 terms residence; (ii) passing (or exemption from) the *Previous* examn.; (iii) passing an examn. in two parts whereof the first may not be taken before the 2nd term, nor the 2nd before the 8th term. The Mus.M. may be taken after at least 3 yrs. have elapsed since *inauguration* (*v. supra*) as Mus.B. and after passing the prescribed examn.

Persons not less than thirty years of age who have graduated in some Faculty of the Univ. and given proofs of distinction in musical composition may be candidates for the Mus.D.

The Sc.D. and Litt.D. Any person may be a candidate for either degree who is a M.A., LL.M., or M.C. of not less than 5 yrs. standing or a M.B. of not less than 7. These degrees are granted in consideration of original contributions to the advancement of Science or learning.

Diplomas. In addition to degrees, which are for the most part conferred only on its own members, the Univ. grants 5 Diplomas which are open to other persons—in Agric., in Geog., in Psych. Med., in Pub. Health, and in Tropical Med. and Hygiene—and 3 which are restricted to members of the Univ.—in Anthrop., Forestry, and Mining Engin. The examn. in Archit. studies entitles to a *Certif.* A *Divinity Testimonium* is granted on proof of diligent attendance at 6 courses of lectures.

The Univ. makes provision for the training of candidates for the Higher Civil Services; Student Interpreters; Indian Civil Service selected candidates; candidates for administrative appointments in Tropical Africa and other branches of the Civil Service and for service under the Govts. of Egypt and the Sudan. To meet the wants of Civil Service candidates a series of lectures supplementary to the courses for regular Tripos candidates has been arranged by the Board of I.C.S. Studies; and by a Committee of Associated Colls. Detailed information may be obtained from the Director of Civil Service Studies, appointed by this Committee (G. P. Moriarty, M.A., 1 Mill Lane), and from H. A. Roberts, M.A., Univ. Offices, St. Andrew's St., who is Secy. to the Board of I.C.S. Studies, to the Foreign Service Students Committee, and to the Appointments Board.

A system of Military Instruction has also been organized by the Univ. The Board of Milit. Studies (*Secy.*—H. J. Edwards, C.B., M.A.,

Pet.) are in direct communication with the War Office and responsible for the nomination of Camb. Univ. candidates for commissions in the Regular Army (*v.* Appendix II).

The Training of Teachers at the Univ. is under the management of the Teachers' Training Syndicate, established in 1878 (*Secy.*—W. G. Bell, M.A., Trin. H.; address—Warkworth House). Under its superintendence lectures are given and examns. are held by the Univ., a *Certificate of Proficiency* in both Theory and Practice being awarded on the results of these examns. The 2 depts.—Primary and Secondary—of the Training Coll. (*Hon. Principal*—W. Durnford, M.A., King's; address—Warkworth House) have also recently come under its management. There is at Cambridge a Training Coll. for Women, founded in 1885 (*Principal*—Miss M. H. Wood, M.A. Lond., Litt.D. Dub., C.T. Camb., Girton; address—Wollaston Rd.).

Candidates are trained for Holy Orders at Ridley Hall, founded in 1880 (*Principal*—A. J. Tait, D.D., Joh.); or at the Clergy Training School, Westcott House, founded in 1881 (*Principal*—C. E. Lambert, M.A., Chr.). These and other similar institns.—the Westminster Coll., founded 1844 (*Principal*—J. Skinner, D.D. Aberd., M.A., Joh., Presbyterian); Cheshunt Coll., founded 1768 (*President*—G. Campbell Morgan, D.D., Undenominational); and St. Edmund's House, founded in 1896 (*Principal*—T. Williams, M.A., Roman Catholic)—are not directly or definitely concerned or connected with the Univ.

Research Students. Each application for admission must be accompanied by (i) a diploma or other certif. of graduation at a Univ.; (ii) a statement as to the course of research which the applicant desires to pursue, together with evidence of qualification, attainments, and previous study; (iii) a certif. or declaration that the applicant has attained the age of 21 yrs. In exceptional cases requirement No. (i) may be dispensed with. The application is not granted unless it appears (*a*) that the course of research can conveniently be pursued within the Univ., and (*b*) that the applicant has produced adequate evidence that he is qualified to enter upon the proposed course.

A Research student pursues his course under direction and supervision, prescribed by the Degree Committee. After he has kept 3 terms by residence, he may submit a dissertation containing an account of and embodying the results of the research carried on by him in the Univ. If the Degree Committee are of opinion that the work is of merit as an original contribution to learning or as a record of original research, he receives a *Certificate of Research*.

A student who has obtained a Certif. of Research and has kept by residence at least 6 terms is entitled to proceed to the degree of B.A. (or, if the Certif. is granted upon a statement made by the Degree Committee of the Special Board for Law, to the degree of LL.B.), and thereafter under the usual conditions to the degree of M.A. (or LL.M.) and to other degrees.

University Scholarships open to graduates. These number about 57, and their aggregate value is about £5600 p.a. In almost every instance they are open only to persons who have graduated in or are members of this Univ., and in some cases only to those who have kept a certain number of terms.

Appointments. There are two organizations: (1) the Appointments Board, which is concerned with appointments of all kinds (Secy.—H. A. Roberts, M.A.; Asst. Secy.—R. S. Goodchild, M.A., Univ. Offices); and (2) the Scholastic Agency, which is concerned with scholastic appointments only (Director—Prof. W. J. Lewis; Secy.—R. L. Leighton; office at Mineralogical Museum).

An Adviser of Indian Students has been appointed by the Secy. of State for India in consultation with the Univ.—E. A. Benians, M.A., Joh.; address—14 St. John's St.

Women reside at the 2 Colls. — Girton and Newnham — at which they are taught, whilst attending also the lectures of the Profs. and other teachers of the Univ. Women students are admitted (1) to the Previous examn.; (2) to the Tripos examn.; (3) to certain examns. in Music; (4) to the examns. connected with the Training of Teachers; and (5) to the Diplomas in Agric. and Geog.; but they are not eligible for degrees.

Girton College. Founded 1869. *Mistress* and Director of Studies (*Moral Sciences*)—Miss E. E. C. Jones.

Other Directors and Resident Lecturers: Miss K. Jex-Blake, M.A. Dub., Vice-Mistress (*Classics*); Miss E. E. Power (*History* and *Economics*); Miss M. T. Meyer, M.A. Dub. (*Maths.*); Miss M. G. Beard, B.A. R.U.I. (*Med. and Mod. Langs.*).

Director of Studies (*Nat. Sciences*)—Miss M. B. Thomas. Resident Asst. Lectrs.—Miss Cave-Browne-Cave (*Maths.*); Miss C. Kirchberger and Miss M. Seaton (*Med. and Mod. Langs.*).

Bursar and Registrar and Asst. Vice-Mistress—Miss E. M. Allen, M.A. Dub. Junior Bursar—Miss H. Reinherz, M.A. Dub. Secy.—Miss M. Clover, M.A. Dub.

Newnham College. Founded 1871. *Principal*—Miss Stephen.

Vice-Principals: Miss B. A. Clough (Clough Hall); Miss A. B. Collier (Old Hall), Lectr. in *Maths.*; Miss E. M. Sharpley (Sidgwick Hall); Miss J. P. Strachey (Peile Hall), Lectr. in *Med. and Mod. Langs.*

Other Staff Lectrs.: Miss E. R. Saunders (*Botany*); Miss J. E. Harrison, Miss L. E. Matthaei, and Mrs. Wedd (*Classics*); Miss G. L. Elles (*Geol.*); Miss A. Gardner (*History*); Misses A. C. Paues and M. Steele Smith (*Med. and Mod. Langs.*); Mlle. Lefèvre, Asst. Lectr. in *French*.

The University Library contains over 700,000 vols., including many early printed books, and over 8000 MSS. and 100,000 maps. It

is entitled under the Copyright Act to a copy of every book published in the U.K., and a large number of foreign books and periodicals are acquired by purchase. Each Coll. and Pub. Hostel has a library. Some are interesting survivals of mediæval rooms kept in the state in which they were originally arranged. Chained books are, for instance, still to be seen in Trinity Hall. Many of the books are of great antiquarian interest. There are also many departmental libraries, such as the Class. Archæol.; the Seeley Memorial (works on Hist. and Comp. Politics originally collected by John Symonds, Regius Prof. of Mod. Hist. from 1771 to 1807, and added to by his successors); Economics; Mod. Langs.; Moral Sciences; Bendall (Arabic, &c.); Pathological School; Music collections in the Fitzwilliam Museum and Museum of Archæol.; Conchol. and Ornithol. (in Museum of Zool.); Robertson Smith (Oriental books); Selwyn Div. School. The Philos. Library maintains a special relation to all the Scientific Depts. and is very rich in sets of Journals and Scientific Transactions. The Balfour Library endowed by the late Prof. Francis Balfour and members of his family contains a large collection of books and periodicals on biological subjects. The Squire Law Library is under the control of the Special Board for Law.

Museums of Art and Archæology. The Fitzwilliam (*Director*—S. C. Cockerell, M.A., Jes.) contains a large and valuable collection of paintings, drawings, engravings, Egyptian and Greek antiquities, ceramics, coins, illustrated MSS., autographs and early printed books; the Museum of Class. Archæol. (*Curator*—A. B. Cook, M.A., Qu.) contains a collection of casts illustrating the history of Greek sculpture.

The Museum of Archæol. and Ethnol. (*Curator*—Baron A. von Hügel, M.A., Trin.) has a large and increasing collection, including Saxon urns and ornaments, casts of Central American monuments, Egyptian stone implements, unique Fijian collection, and numerous others resulting from scientific expeditions by Cambridge men.

The "Museums of Science" consist of the museums, labs., lecture-rooms, class-rooms, and workshops for Agric., Anthrop., Bot., Chem., Exper. Physics, Hum. Anat., Engineering (including Engine-room, Elasticity, Elec., and Hydraulic Labs., and drawing office), Medicine, Mineralogy (collection very largely increased in last 12 yrs., and, after that of the Brit. Museum, one of the best in the country); Physiology; Psychology; Zoology and Comparative Anatomy. The Zool. Lab., in addition to providing for the ordinary work of the Dept. and for research, affords peculiar facilities for the study of diseases of animals and of economic entomology. The Museum of Zool. includes very complete series of vertebrates and invertebrates, the fishes obtained by Charles Darwin during the voyage of H.M.S. *Beagle*, a series of invertebrata from Naples, valuable collection of Polyzoa, extensive collection of marine animals from Pacific and Indian Oceans, and an important collection illustrating heredity, protective resemblance, and mimicry [*Supt.*—L. Doncaster, Sc.D., King's; *Strickland Curator* (Birds)—H. Gadow, M.A., F.R.S. (King's), Great Shelford; *Curator* in Entom.—H. Scott, M.A., Trin.]. The Sedgwick Museum of Geol.

includes a fine collection of British and foreign building stones lately added to the Economic section. St. John's and Downing Colls. have Chem. Labs.

The Department of Agriculture has, in addition to the labs. of the School of Agric. (opened in 1910), Field Labs. covering about 10 acres near Milton Rd. provided by means of Govt. grants as part of the equipment of an Inst. for Research in Animal Nutrition; also the Univ. (Gravel Hill) Farm of 200 acres and How Hill Plant-breeding Farm of 230 acres equipped by means of a grant from the Board of Agric.

The OBSERVATORY (*Director*—Lowndean Prof. of Astr.) stands on the Madingley Rd. about a mile from Cambridge. It has a meridian circle of 8½ in. aperture; the Northumberland equatorial 12 in. aperture; the Sheepshanks photographic equatorial 12½ in.; a number of smaller instruments, and a good library. The Solar Physics Observatory standing close to the older Obs. has the Newall telescope (25 in.); McClean cœlostat and spectrograph; Huggins telescopes; and other apparatus. The Univ. has during the year taken over charge (for the Govt.) of the Solar Physics Observatory formerly at South Kensington, receiving a grant-in-aid.

The CAMBRIDGE LOCAL EXAMINATIONS, instituted in 1858, are conducted at various places throughout the country and in the Colonies. Copies of the Regns. regarding the Prelim., Junr., Senr., and Higher Local examns. and the examns. (designed for teachers of not less than 20 yrs. of age and first held in 1913) for Certifs. of Proficiency in Religious Knowledge and in Mod. Langs., may be obtained from the *Secy. to the Local Examns. and Lectures Syndicate*—J. H. Flather, M.A., Syndicate Buildings.

THE EXAMINATION AND INSPECTION OF SCHOOLS and Examns. for the Award of SCHOLARSHIPS offered by public bodies are also undertaken by the same Syndicate. The Board of Education recognize the Univ. as an agency for the inspection of Secondary Schools as provided under sec. 3 of the Bd. of Educn. Act, 1899, subject to the condition that in any such inspection an Inspector of the Board shall be associated with those of the Univ. and have the administrative side of the inspection under his special charge. As regards the *Oxford and Cambridge Schools Examn. Board*, *v.* p. 408. (*Secy.* for Camb.—E. J. Gross, M.A., Cai.)

UNIVERSITY EXTENSION Lectures are delivered and classes in connexion with them held by a staff of about 25 itinerant lecturers in some 60 towns in various parts of England, including places so distant as Blackpool, Newcastle, Worthing, and Exeter, under a system initiated in Cambridge in 1873. The characteristic features of the method of teaching adopted are (i) the Lecture presenting the subject in broad outline, (ii) the Class, held for about an hour before or after the lecture, at which questions are given out by the lectr., (iii) the short

essays written on these questions, and (iv) the examn. The grades of certifs. are: *Terminal*, awarded after a course of ordinarily 12 lectures; *Sessional*, for courses extending over not more than 2 yrs. and including at least 22 lectures; the *Vice-Chancellor's*, awarded to students who obtain Terminal or Sessional certifs. satisfying certain conditions and submit a satisfactory essay; and *Affiliation* certif., obtainable only at affiliated centres (Exeter, Leicester, Northampton, and Southport) under special conditions. A *Travelling Library* is provided by the Syndicate for each course. The work is under the management of the Local Examns. and Lectures Syndicate, and full particulars can be obtained from the Secy. for Lectures, Syndicate Buildings (D. H. S. Cranage, Litt.D.).

Tutorial Classes have been instituted recently in connexion with the Workers' Educational Assocn. They are in each case limited to about 30 members, nearly all of whom are working men and women, who pledge themselves to attend the 24 lectures and classes provided in each session and to write essays. The course covers at least 3 yrs. The classes are managed by a Committee appointed by the Syndicate, consisting of 5 resident members of the Senate and 5 representatives nominated by the W.E.A.

Publications. The *Camb. Univ. Reporter*, weekly during term, 3d. a copy, terminal subs. 2s. 6d., or by post 3s. 6d.; *Ordinances*, 1911, with Suppt. 1912–13 (fresh editions every 3 or 4 yrs., with suppts. in intervening years); *The Student's Handbook*, annually in Sept., 3s.; *Compendium of Univ. Regns.*, 6d.; *The Statutes of the Univ., with some Acts of Parlt.*, 3s. 6d.; *Endowments of the Univ. of Camb.*, 1904; *Matricn. and Degrees* (a list of all those who have entered the Univ.; last ed. 1850–1900); the *Calendar*, pubd. by Deighton Bell and Co. *Histories*: (*a*) "Annals of Camb.," by C. H. Cooper, 5 vols. (*b*) "The Univ. of Camb.," by J. B. Mullinger; 3 vols. have been pubd. (*c*) College Histories—Robinson's Series, various authors; Dent's Series—King's, St. John's, Trinity, 2s. each. *Magazines*: The *Camb. Review*, the *Granta*, the *Camb. Magazine*, weekly during term (*v. also* p. 410).

Affiliated Institutions. The privileges of affiliation are granted, under certain conditions, (*a*) to members of Affiliated Institns.; (*b*) to graduates of other Univs. approved for the purpose. A student fulfilling the required conditions is entitled to either or both of the following privileges, namely: (1) to be exempted from all parts of the Previous examn.; (2) to reckon the 1st term kept by residence as the 2nd, 3rd, or 4th term of his residence, for the purposes of all provisions respecting the standing of candidates for Tripos examns. or for Degree examns. in Med., Surg., or Music, and respecting the standing of candidates for degrees.

List of Affiliated Institutions. St. David's Coll., Lampeter; St. Edmund's Coll., Old Hall, Ware. *Univ. Colls.*—Wales (Aberystwyth), S. Wales (Cardiff), Nottingham, Hartley (Southampton), Exeter. *Universities*—Adel., All., Bish., Bom., Calc., Cape, King's

(N.S.), McGill, Mad., Mt. All., New B., New Z., Panj., Queen's (Ont.), Sheff., Syd., Tasm., Tor. Certain *Local Lectures Centres.*

List of Approved Universities. Aberd., Belf., Birm., Bris., Dub., Durh., Edin., Glas., N.U.I., Leeds, Liv., Lond., Manc., Ox., St. And., Wales.

THE YEAR 1912–13

BENEFACTIONS (during the year ended Dec. 31, 1912). £20,000 for endowment of Arthur Balfour Chair of Genetics; £2302 subscriptions to Balfour Library Endowment; £1100 for endowment of Michael Foster Research Studentship; £1100 for endowment of a Lectureship in Zool.; £500 towards maintenance of new buildings for Physiol. and Exper. Psychol.; £500 towards equipment of Solar Physics Lab.; £200 for new School of Physiol.; about £10,000 for general purposes; a conditional offer of £10,000 towards endowment of a Chair of Astrophysics.

NEW POSTS. Univ. Lectr. in Zool.; Arthur Balfour Prof. of Genetics (Chair of Biol. discontinued); Local Adviser for Indian Students; Secy. of the Univ. Buildings Syndicate; Adviser in Forestry; Staff of Solar Physics Observatory; Univ. Lectr. in Astrophysics; Univ. Lectureship in Form and Analysis in Music; Asst. in Exper. Psychol.; Director of Milit. Studies; Third Under-Librarian.

The Adviser in Forestry was appointed in pursuance of a scheme of the Board of Agric. which offered a grant of £500 p.a. for 2 yrs. for the purpose. Some 1600 acres belonging to 12 estates have already been examined and reported on at the request of owners.

UNIVERSITY EXTENSION. Lectures were held at 59 places; 81 courses were given; the average number of persons attending the lectures was 9630, attending classes 2402, submitting papers 571; 268 were examined. New centres were opened at Ansdell and Southwold, and work was revived at Doncaster, Hitchin, and Wellingborough. A Joint Committee for *Tutorial Classes* (which were held at 4 centres) was appointed (*v. supra*); new classes were started at Ipswich and Norwich, and the Leicester and Portsmouth classes were continued for a 4th yr. The 1st Summer School in connexion with Tutorial Classes was held at Camb.; 15 students attended. The 2nd summer course in Geog. was attended by 142 students, mostly teachers in Secondary Schools.

NUMBER OF RESIDENT UNDERGRADUATES, Michaelmas Term, 1913—3306; resident graduates—1113, including 371 B.A.s.

HONORARY DEGREES CONFERRED. *D.D.*—Charles Henry Stileman, *Trin.*, Bishop in Persia; John Storrs, *Pemb.*, Dean of Rochester; Benjamin John Plunkett, *Corp.*, Bishop of Tuan; Rollestone Sterritt Fyffe, *Emm.*, Bishop of Rangoon; Henry Bickersteth Durrant, *Pemb.*, Bishop of Lahore. *M.A.*—Guy le Strange. *LL.D.*—Admiral Sir

Wilmot Hawksworth Fawkes, G.C.B., K.C.V.O.; John Singer Sargent, R.A. *Litt.D.*—H. E. Adolph Heinrich Goothilf Wagner; Commendatore Giacomo Boni; Sir Frederic George Kenyon, K.C.B., F.B.A.; Sir John Knox Laughton, M.A., *Cai.*; Sir James Augustus Henry Murray, F.B.A.; Thomas Hardy, O.M.; Reginald Lane Poole, F.B.A.

Other Degrees. B.A., 907; M.A., 391; D.D., 5; M.D., 29; Sc.D., 4; Litt.D., 4; B.D., 1; LL.M., 3; M.C., 3; M.B., 57; B.C., 51; LL.B., 72; Mus.B., 5.

Diplomas. In Pub. Health, 42; Trop. Med., 21; Psych. Med., 2; Forestry, 3; Agric., 24; Geog., 9.

Number of Women who passed Tripos Examns. (1913). Maths., Pt. I, 19, Pt. II, 10; Class., Pt. I, 20, Pt. II, 4; Moral Sciences, Pt. II, 1; Nat. Sciences, Pt. I, 13, Pt. II, 3; Theol., Pt. II, 1; Law, Pt. I, 2; Hist., Pt. I, 21, Pt. II, 20; Mediæval and Mod. Langs., 42; Mech. Sciences, 1; Econ., Pt. I, 3, Pt. II, 4.

Changes in Regulations. New regns. for Part I of Class. Tripos and for Theol. Tripos have been made; a Tripos in Anthrop. has been established; further provision has been made for teaching Span. and Ital.; new regns. relating to research and to affiliated students have been approved; Syndicates were appointed to consider (1) the question of examns. conducted by the Univ. for which preparation normally takes place at school; (2) what alterations, if any, are desirable in the ordinances relating to degrees in Divinity.

Additions to Buildings. The extension of the School of Agric. was nearly completed; the Psych. Lab. was opened; progress was made towards completion of the Physiol. Lab. (Drapers' Company), Museum of Archæol. and Ethnol., and Forestry School; Field Labs. on Milton Rd. were taken over; Solar Phys. Obs. was transferred from Kensington to Camb.; and the new Obs. buildings were nearly completed.

UNIVERSITY OF THE CAPE OF GOOD HOPE

[Incorporated by Act of the Cape Legislature 1873, and granted a Royal Charter 1879.]

CHANCELLOR	Field-Marshal H.R.H. the DUKE OF CONNAUGHT AND STRATHEARN, K.G., K.T., K.P.
VICE-CHANCELLOR AND PRESIDENT OF CONVOCATION	W. RITCHIE, M.A., Prof. of Latin, &c., in the South African Coll., Cape Town.
PRO VICE-CHANCELLOR	Hon. W. P. SCHREINER, M.A., LL.M., K.C., C.M.G.
REGISTRAR	W. THOMSON, M.A., B.Sc., LL.D.

GENERAL INFORMATION

This is an examining and degree-granting institution exercising no direct control over the Univ. Colls. and other teaching institutions of South Africa. It grants degrees and certifs. as follows: B.A., M.A.; B.D.; LL.B., LL.D.; B.Sc., M.Sc., D.Sc.; Certif. of Proficiency in Law and Jurispr.; in English and Dutch; and in the Theory of Land Surveying. Besides holding examns. for these, which are provided for by the Univ. Incorporation Act, the Univ. conducts School Certif. and Music Certif. and Licentiate examns. The Charter of 1879 declares the degrees to be entitled to the same rank, precedence, and consideration as those of any Univ. in the U.K.

The B.A. examns. are held at the end of Nov. For the Pass B.A. the subjects may be purely literary, purely scientific, or mixed. No candidate is admitted to the Pass B.A. examn. until after the expiration of at least 2 academic years from the date of his passing the Interm. Arts examn., which, similarly, cannot be taken until a year after passing the Matricn. or equivalent examn. But it is not necessary that the intervening periods should have been spent at a Univ. Coll. They may have been spent in private study. As a matter of fact, however, nearly all the students presenting themselves for the Interm. examn. or the B.A. come from the Univ. Colls. The Matricn., which is the common entrance examn. for these Colls., and the Interm. in Arts are organized and the examiners are appointed by the Univ. in pursuance of the provisions of sec. 9 of the Univ. Incorpn. Act. The B.A. Honours examn. is not alternative to the Pass examn., but is at present taken concurrently with it. After 1915 the Honours examn. may be taken one year subsequently to the Pass examn.

The B.Sc. degree may be obtained either in Mining Engin. (with

Diploma) or in Agric. In either case the curriculum covers 4 years. An examn. is held at the end of each year, those of the first 2 years in each course dealing with preliminary scientific subjects and those of the 3rd and 4th with technical. The M.Sc. may be obtained in Mining Engin. or in Pure Science.

The professional qualification of Govt. Land Surveyor is obtained by passing the 1st and 2nd Survey examns. of the Univ. and a Practical Survey Examn. conducted by the Surveyors-General.

Scholarships for Graduates in 1914. One Porter, £150; two Q. Victoria, £150 each; one George Grey, £150; one Univ., £150; one Croll, £220; one Jamison, £200. The Jamison is tenable for 4 years, and competitors must have been born in Cape Province of parents domiciled therein and have attended classes for 2 years at the S.A. Coll. The others are tenable for 3 years and are open to candidates whose parents or guardians are domiciled in or who have studied during the 2 next preceding years in the Union of S.A. and who fulfil certain other conditions, including the passing of the Cape Matricn. and Interm. Arts examn. They are awarded to the candidates who graduate with the greatest distinction.

Publications. The *Calendar*, pubd. in March, price 3s. 6d.; *Certif. and Matricn. Examns. Pamphlet*, Dec., 3d.; *Music Examns. Pamphlet*, Dec., 3d.; *Examn. Papers* from 1910; *Univ. Gazette*, pubd. after each Council meeting, 2s. 6d. p.a. All these may be obtained from J. C. Juta and Co., Cape Town.

THE YEAR 1912-13

Field-Marshal H.R.H. the Duke of Connaught and Strathearn was elected Chancellor in succession to H.M. King George, who had held the office since 1901. Prof. Walker, of Vict. Coll., Stellenbosch, was succeeded by Prof. Ritchie in the Vice-Chancellorship.

Benefactions Received during the year. £11,000 Alexander Croll bequest for additional scholarships in connexion with the B.A. examn.; £1000 for an Art Scholarship for women.

Number of Students examined by the Univ. in 1912. For Bachelorship, Final and Prelim., 221; Interm., 477; for Master's or Doctor's degree, 7; Survey and Law Certifs., 50; Matricn., 1649; Lic. in Music, 67; School and Music Certifs., 5890. The number of students preparing for the Bachelorship in each Univ. Coll. will be found in the notes regarding the Coll. Number of women students (post-matricn.) included in the above figures: Examined for Univ. degrees, 40; others, 134. In 1912 there were 18 Univ. scholars and 4 Music scholars continuing study in Europe.

Degrees Conferred (1912). Honorary—LL.D., 1; D.Litt., 1; D.Sc., 3. Ordinary—B.A., 106; M.A., 2; B.Sc., 1; LL.D., 1; LL.B., 6; B.D., 1. Number of women included in the above—B.A., 27.

ADDITIONS TO BUILDINGS. The Univ. and Examn. Halls, erected mainly through the generosity of the family of the late Sir Donald Currie, were completed and formally opened by the Govr.-Genl. on the occasion of the Annual Graduation ceremony in Feb. 1913. This completes the block commenced upon the site and with the aid of a bequest (£25,000) left to the Univ. by the late Dr. Willem Hiddingh.

LEGISLATION with a view to establishing at Groote Schuur, near Cape Town, a Teaching Univ. for S.A. has been in contemplation since 1910. In 1913 a Bill was brought forward in Parliament and reported on by a Select Committee which recommended the appointment of a Commission to inquire into the whole question.

ANNUAL MEETINGS of College Professors of Lit. and Science to discuss syllabuses and make suggestions to the Univ. Council are held. In 1912 Grahamstown was the meeting-place, and in 1913 Pietermaritzburg.

UNIVERSITY COLLEGES OF SOUTH AFRICA

(Colleges providing instruction in subjects prescribed for the Higher examns. of the Univ. of the Cape of Good Hope. The dates in brackets give their precedence as Institns. undertaking higher education.)

Bloemfontein : Grey Univ. Coll. (1904).
Cape Town : South African Coll. (1829).
Grahamstown : Rhodes Univ. Coll. (1904).
Johannesburg : South African School of Mines and Technology (1903).
Pietermaritzburg : Natal Univ. Coll. (1910).
Pretoria : Transvaal Univ. Coll. (1908).
Stellenbosch : Victoria Coll. (1886).
Wellington : Huguenot Coll. (1898).

GREY UNIVERSITY COLLEGE, BLOEMFONTEIN

[A Government College established by the Orange River Colony Higher Education Act, 1910.]

CHAIRMAN OF THE COLLEGE COUNCIL	W. J. VILJOEN, M.A., L.N.C., Ph.D., Director of Education for the Province.
REGISTRAR	R. B. SAAYMAN, B.A. Cape.

PROFESSORS, LECTURERS, ETC.

BOTANY [Prof.
POTTS, G., B.SC. DURH., PH.D. HALLE

CHEMISTRY
RINDL, M., D.ING. CHARL. Prof.

GEOLOGY and Zoology
DREYER, T. F., B.A. CAPE, PH.D. HALLE Lectr.

GRAPHICS
HATCHARD, J. G., F.R.A.S. Instr.

LANGUAGES
Dutch, French, and German
MALHERBE, D. F., B.A. CAPE, PH.D. FREI. Prof.
Dutch and History
FRANCKEN, A., B.A. CAPE Prof.
English
JOHNSON, W. S., M.A. R.U.I. Prof.
Greek
ROSS, J. A., M.A. CAPE Lectr.
Latin
CONLIN, W., M.A. DUB. Prof.

LAW
MORICE, G. T., B.A. OX., K.C. Lectr.

MATHEMATICS
WOOLSTON, J. H., M.A. CAMB. Prof.
Applied Mathematics
MUDD, N., B.A. CAMB. Lectr.

PEDAGOGY
KNOTHE, G., M.A. CAPE, L.N.C. UTR., PH.D. STRASS. Prof,

PHILOSOPHY [Prof.
FORSYTH, T. M., M.A., D.PHIL. EDIN.

PHYSICS
LOGEMAN, W. H., M.A. CAPE Prof.

CHANGES IN STAFF

Conlin, W., appointed Prof. of Latin ; Dreyer, T. F., apptd. Lectr. ; Fischer, P. U., Lectr. in Law, resigned ; Grayson, E. N., apptd. *vice* Ross and resigned ; Logeman, W. H., formerly Lectr. in the S.A. Coll., apptd. *vice* Rudge ; Morice, G. T., apptd. *vice* Fischer ; Ross, J. A., M.A., Registrar, resigned ; Rudge, W. A. D., M.A., Prof. of Physics, resigned ; Saayman, R. B., apptd. *vice* Grayson.

GENERAL INFORMATION

The College prepares students for the B.A. and M.A. degrees in Lit. and Science, the Survey and Law Certifs. of the Univ., and Teachers' (Union 1st class, O.F.S. 2nd class) Certifs. It also provides prelim. training for the study of Med., Engin., and Agric. The Coll. boarding-house contains 40 rooms for men students, and there is a temporary hostel in the town for women. The Coll. is situated 2 miles outside Bloemfontein. The academic year is divided into 4 quarters.

SCHOLARSHIPS FOR GRADUATES. The Provincial Govt. awards annually (*a*) a scholarship of £100 p.a., tenable for 3 years, to the most promising graduate in the Coll. who may be in need of assistance to enable him to pursue an approved course of study abroad ; (*b*) 5 scholarships of £150 p.a. each, tenable for one year, to students who

have passed the Cape B.A. or its equivalent (or in the case of women the I.A.) and desire to proceed to Europe to study. Candidates for either (*a*) or (*b*) must undertake to serve the Govt. for 3 years if required.

PUBLICATIONS. The *Calendar*, issued in Nov.

THE YEAR 1912. A Govt. grant of £5000 and a loan of £12,000 for new buildings were received. *University Extension.* A course of lectures was given by members of the staff at Bloemfontein and other centres. *New Posts.* A Lectureship in Geol. and Zool. *Number of Students* preparing for the Interm. examn. and B.A., 83 (including 16 women); for the M.A., 1; for Teachers' Certif., 4; for Law Certif., 4; students continuing study or research in Europe or America, 24. *Degrees Obtained.* B.A., 10 (Honours, 2); M.A., 1. *Additions to Buildings.* Plans for new classrooms, &c., and a Women's hostel beside the Coll. are being prepared.

SOUTH AFRICAN COLLEGE, CAPE TOWN

[Constitution defined by Acts 15 of 1878, 12 of 1879, and 10 of 1904 of the Cape Legislature.]

CHAIRMAN OF COUNCIL	J. M. RUSSELL, M.A., B.D.
CHAIRMAN OF SENATE	E. B. FULLER, M.D.
REGISTRAR	A. D. R. TUGWELL.

PROFESSORS, LECTURERS, ETC.

ANATOMY [Prof.

THOMSON, R. B., M.B., CH.B. EDIN.

DRENNAN, M. R., M.A., M.B., CH.B. EDIN. Lectr.

BOTANY

PEARSON, H. H. W., M.A., SC.D. CAMB., F.L.S. Prof.

VACANT Lectr.

STEPHENS, MISS E. L., B.A. CAPE, F.L.S. Lectr.

CHEMISTRY and Metallurgy

HAHN, P. D., PH.D., M.A. HALLE Prof.

TIETZ, H., M.A. CAPE, PH.D. BERL. Lectr.

HALLACK, R. Demr.

ROBERTSON, R. B. Demr.

EDUCATION

CLARKE, F., M.A. OX. Prof.

ELECTRO-TECHNICS

BOHLE, H., M.V.D.E., M.I.E.E., F.R.S. S.AF. Prof.

ENGINEERING, Civil

SNAPE, A. E., M.SC. MANC., A.M.I.C.E., M.R.SAN.I. Prof.

LEES, J., A.R.C.S. LOND. Lectr.

Electrical Engineering

HAMLIN, E., B.SC. BRIS. Asst.

Mechanical Engineering

MCMILLAN, D., A.G.T.C. Lectr.

WEAVER, G. H. Lectr.

GEOLOGY, v. *Mineralogy*

HISTORY

WALKER, E. A., M.A. OX. Prof.
STOCK, J. L. W., B.A. OX. Lectr.

HYGIENE [Lectr.

ANDERSON, A. J., M.A., M.B. OX., M.R.C.S. ENG., D.P.H. CAMB.

LANGUAGES and Literature

Classics

VIPAN, G. W., M.A. CAMB. Prof.

Dutch

DU TOIT, P. J., M.A. CAPE, PH.D. GHENT Prof.
LE ROUX, J. J., B.A. CAPE Lectr.

English Lang. and Lit.

CLARK, J., M.A., LL.D. ST. AND. Prof.
WYNNE, A., M.A. MANC. Lectr.

French and German

LOGEMAN, W. S., L.H.C. UTR. Prof.
NAUTA, R. D., L.M.O. HOLL. Prof.

Greek [Prof.

LEWIS, C. E., M.A. CAPE AND CAMB.

Hebrew

BENDER, A. P., M.A. CAMB. Prof.

Latin and Class. Philol. [Prof.

RITCHIE, W., M.A. ABERD., M.A. OX.

LAW [Acting Prof.

GUTSCHE, C., B.A., LL.B. CAPE
HOWES, R. B., M.A. DUB., LL.B. CAPE Acting Prof.
SUTTON, G. G., B.A. CAPE, LL.B. CAMB. Lectr.
TOMS, W. R., B.A., LL.B. CAPE Lectr.

MATHEMATICS, Pure

CRAWFORD, L., M.A. CAMB., D.SC. GLAS., F.R.S.E. Prof.
KENT, T. P., M.A. OX. Prof.
BEHRMAN, MISS ELLEN, M.A. CAPE Asst.

Applied Mathematics

BROWN, A., B.A. CAMB., M.A., B.SC. EDIN., F.R.S.E. Prof.
BIGGS, H. F., B.A. DUB. AND CAMB. Lectr.

MINERALOGY and Geology

YOUNG, A., M.A., B.SC. EDIN., F.C.S., F.G.S. Prof.
WALKER, A. R. E., A.R.C.S. LOND., B.SC. LOND. Lectr.

PHILOSOPHY

REYBURN, H. A., M.A. GLAS. Prof.
HAMILTON, W. R., B.A. CAPE Lectr.

PHYSICS [Prof.

BEATTIE, J. C., D.SC. EDIN., F.R.S.E.
JACOT, E., B.A. CAPE AND CAMB. Lectr.
PEALING, H., M.SC. LIV. Lectr.
WALKER, E. B. Demr.

PHYSIOLOGY

JOLLY, W. A., M.B., CH.B., D.SC. EDIN. Prof.

ZOOLOGY

GILCHRIST, J. D. F., M.A., D.SC. EDIN., PH.D. ZÜR., F.L.S. Prof.
RAY, R., B.SC. ST. AND. Lectr.

CHANGES IN STAFF

Behrman, Miss E., appointed Asst. in Maths., 1913; Drennan, M. R., formerly Demr. of Anat. in Edin., apptd. Lectr. in Anat., 1913; Hamilton, W. R., apptd. Lectr. in Philos., 1913; Hamlin, E., apptd. Asst. in Elec. Engin., 1912; Jacot, E., formerly 1851 Exhibn. Scholar of S.A. Coll., apptd. *vice* Logeman, 1913; Logeman, W. H., M.A., Lectr. in Phys., resigned on apptmt. as Prof. at Grey Univ. Coll.; Lundie, M., Demr. in Chem., resigned on apptmt. as Asst. in Grootfontein Agric. Coll.; Pealing, H., formerly Demr. and Lectr. in Liv., apptd. Lectr. in Phys., 1913; Ray, R., formerly Lectr. in Liv., apptd. Lectr. in Zool., 1913; Reyburn, H. A., formerly Lectr. in Glas., apptd. Prof. of Philos., 1912; Saxton, W. T., B.A., Lectr. in Bot., resigned

on apptmt. as Prof. at Ahmedabad Coll., India, 1913; Weaver, G. H., formerly Lectr. in the City of Bradford Tech. Coll., apptd. Lectr. in Mech. Engin., 1913.

GENERAL INFORMATION

COURSES are provided leading to the Cape Univ. B.A. (Pass and Honours) degree; M.A.; 1st and 2nd year B.Sc. Mining examns.; Survey 1st and 2nd examns.; B.Sc.Agr. 1st and 2nd year examns.; and LL.B. and Law Certif. examns.; to the Civil Service Law examns., Lower and Higher; and to S.A. Coll. Diplomas in Engin. (3 years course preceded by a preliminary year) and in Chem. (3 years course). Other courses that may be taken at the College are the first 2 years of a 5 years Medical course; the non-professional part (lasting 18 mos.) of the post-grad. course for the "TI" Certif. of the Union Govt. Educn. Dept. (the professional part is taken at the Normal Coll., Cape Town); 2 years courses for parts of the Admission examn. of the Theol. Seminary, Reformed Dutch Church; a course in Hebrew for the same examn. or for the Cape B.D.; a prelim. scientific course in Dentistry; a course in Hygiene. The academic year is divided into 4 terms beginning in Feb. and ending in Nov.

MEDICINE. The Genl. Med. Council of the U.K. has added this Coll. to its list of approved Institns. The 1st year's course and the 1st professional examn. (conducted by the Cape U. as a part of the B.Sc. 1st year examn.) are accepted by the Univs. of Edin., Aberd., Bris., Manc., by the R.C.P. Lond. and R.C.S. Eng. The classes for the 1st year are accepted by Glas., Aberd., Durh., and Dub. Univs. The 2nd year is recognized by Edin. Univ., R.C.P. Lond., and R.C.S. Eng. The *Dentistry* course is recognized by the R.C.S. Eng., the R.C.P.S. Edin., and the Edin. Dent. School. The *Hygiene* course is recognized by the 4 Conjoint Boards of P. and S. of Eng., Ire., Edin., and Glas.

ENGINEERING. The Inst. of C.E. Lond. recognizes the Prelim. Scientific examn. as exempting from studentship examn. The Diploma in Civ. or Elec. Engin. exempts from examn. for A.M.I.C.E. Lond. The Union Govt. undertakes to employ under indentures for three years at a salary a certain number of Civ. Engin. Diploma holders. Certain firms in Europe agree to accept for periods of probation in their works holders of the Elec. Engin. Diploma.

RESIDENTIAL FACILITIES. S.A. Coll. House, a dept. of the Coll. under the control of the Council, provides accommodation for about 80 students (men). Prof. Beattie is Head of the house. There are likewise two residences for women students under the control of the Council. They provide accommodation for about 25.

SCHOLARSHIPS FOR GRADUATES. A Worcester Coll. (Oxford) Exhibition of £30 p.a. for 2 years is awarded in alternate years on the

results of the B.A. Honours examn., candidates from S.A. Coll. having a preference. This may be held with a Cape Univ. Scholarship.

The LIBRARY is in Hiddingh Hall (which contains the Assembly and Common rooms). There is space for 30,000 vols. The Stuttaford bequest provides £150 p.a. for additions. Students have access to the S.A. Public Library, which contains 100,000 vols. and is specially well equipped with books on Zool. and Bot. Students taking the teachers' "TI" course may use the Library of the Educn. Dept. The Bolus Herbarium (*Curator*—Mrs. F. Bolus, B.A. Cape) and Library are open to Bot. students. The former includes the Guthrie collection of specimens of the flora of the Cape Peninsula.

LABORATORIES. The Coll. has Biol., Chem., Engin., Geol., Med., and Phys. Labs. The Engin. section includes a 50 h.p. steam-engine, 15 h.p. suction gas-engine, and 300 ton compression testing machine.

The S.A. MUSEUM adjoins the Coll. It has Anthrop., Bot., Ethnol., Geol., and Zool. depts.

PUBLICATIONS. The *Calendar*, issued in Nov.

THE YEAR 1912

BENEFACTIONS RECEIVED. A bequest for a scholarship of the annual value of about £230.

UNIVERSITY EXTENSION. In 1912, for the first time, a connected course of Univ. extension lectures was given outside in addition to those given in Cape Town. In that year courses were in greater demand than single lectures.

NEW DEPARTMENTS, &c. In conjunction with the Normal Coll., Cape Town, the S.A. Coll. has been recognized as a centre for the post-grad. course for the newly founded "TI" Certif. of the Educn. Dept. of the Union Govt. New Lectureships in Bot., Mech. Engin., Phys., Zool., and an Ass'tship in Pure Maths. have been instituted.

NUMBER OF STUDENTS preparing for the Bachelorship and Diploma examns., 276 (including 35 women); M.A., 4; Misc., 22. There were also 106 (including 27 women) preparing for the Interm. examn. Number who obtained degrees—B.A., 28.

ADDITIONS TO BUILDINGS AND EQUIPMENT (1913). Apparatus for beginning a Psych. Lab., a 300 ton compression testing machine and other additions to Engin. Dept. A second women's *Hostel* was opened in 1913.

RHODES UNIVERSITY COLLEGE, GRAHAMSTOWN

[Incorporated by Act 21 of 1904 of the Cape Legislature.]

CHAIRMAN OF COLLEGE COUNCIL	Hon. Mr. Justice KOTZE, LL.D., K.C.
CHAIRMAN OF SENATE	Prof. S. SCHÖNLAND.
REGISTRAR OF COUNCIL AND SECRETARY OF SENATE	Lt.-Col. H. GREENER, D.S.O.

PROFESSORS, LECTURERS, ETC.

BOTANY
SCHÖNLAND, S., PH.D. KIEL, HON. M.A. OX. Prof.

CHEMISTRY and Metallurgy
CORY, G. E., M.A. CAMB., DURH., AND CAPE Prof.

DRAWING and Graphics
ARMSTRONG, F. W., A.R.C.A. (Principal, Grahamstown School of Art) Instr.

GEOLOGY [Prof.
SCHWARTZ, E. H. L., A.R.C.S. LOND.

HISTORY and Economics
MACMILLAN, W. M., B.A. OX. AND CAPE Lectr.

LANGUAGES
Classics [Lectr.
ALEXANDER, J., B.A. OX. AND LOND.
Dutch
DINGEMANS, G. F., M.A. EDIN. Prof.
English
KIDD, A. S., M.A. CAMB., MANC., AND CAPE Prof.
French and German
BODMER, H. S., M.A. CAMB. Lectr.
German and Dutch [Lectr.
WEEHWUIZEN, P. B., M.O. HOLL.
Greek
BOWLES, C. W., M.A. CAMB. AND CAPE Prof.
Latin
SMAIL, W. M., B.A. OX. Prof.

LAW
LEWIS, H. G., B.A. CAPE AND CAMB., LL.B. CAMB., ADV. OF SUPREME COURT Prof.

MATHEMATICS, Pure [Prof.
WILLIAMS, D., B.SC. LOND. AND CAPE
MARTIN, J., M.A. CAMB. AND CAPE Lectr.
VARDER, R. W., B.A. CAPE Lectr. and Demr.
GREGORY, T. W., B.SC. WALES AND LOND. Lectr. and Demr.

PHILOSOPHY
LORD, A. R., M.A. OX. Prof.

PHYSICS and Applied Maths.
OGG, A., M.A., B.SC. ABERD., PH.D. GÖTT. Prof.

ZOOLOGY [Prof.
DUERDEN, J. E., A.R.C.S. LOND., M.SC. CAPE, PH.D. J. HOPK.

CHANGES IN STAFF

W. M. Smail appointed Prof. of Latin *vice* P. van Braam, Litt.D., who resigned.

GENERAL INFORMATION

The College provides courses leading to the B.A. (Pass or Honours) degree; M.A.; 1st and 2nd B.Sc. in Agric.; LL.B.; Law Certif.; 1st and 2nd class Survey Certif.; Union Civ. Service Law examns.; Prelim. Medical and Engin. courses; and 1st class Teachers' Certif. The R.C.P. and S. Lond. and the Univs. of Edin., Glas., Aberd., and T.C.D. have recognized the Profs. of Phys., Chem., Bot., and Zool. as extra-mural Lectrs. Students intending to proceed to Scottish Univs. to study Medicine may take the first year of the course at Rhodes Coll.

SCHOLARSHIPS FOR GRADUATES. A studentship of £21 for one year is to be awarded to a grad. of any Univ. attending the LL.B. class.

PUBLICATIONS. The *Calendar*, issued in Nov.

THE YEAR 1912. £12,000 was received from Govt. towards new Coll. buildings. *Number of Students*. Full time preparing for B.A., 51 (including 17 women); occasional, 8; preparing for M.A., 4; continuing study or research in Europe, 15. A new *Hostel* for women was opened, and the building of one for men was commenced.

SOUTH AFRICAN SCHOOL OF MINES AND TECHNOLOGY, JOHANNESBURG

[Incorporated by Act of the Transvaal Legislature, 1910, taking the place of the Johannesburg branch of the Transvaal Univ. Coll.]

CHAIRMAN OF COUNCIL	H. J. HOFMEYR.
CHAIRMAN OF SENATE AND PRINCIPAL	G. S. CORSTORPHINE, B.Sc. Edin., Ph.D. Münch.
SECRETARY	W. E. CURSONS.

PROFESSORS, LECTURERS, ETC.

CHEMISTRY

WILKINSON, J. A., M.A. CAMB., F.C.S. LOND. — Prof.
GILL, H. W., B.SC., F.I.C. — Lectr.
COHEN, D., B.A. CAPE — Junr. Lectr. and Demr.

ELECTRO-TECHNICS

BUCHANAN, W., B.SC. GLAS., A.R.C.S. LOND., M.I.E.E. — Prof.
MICHELL, F. H., A.M.I.E.E. — Lectr.
BALLARD, A. L., B.SC. LOND. — Asst. Lectr.

ENGINEERING

ORR, J., B.SC. GLAS., M.I.C.E., M.I.M.E., M.AM.S.C.E., M.AM.S.M.E. Prof.

ALEXANDER, W., A.R.T.C., A.M.I.C.E. Lectr.

MC GILL, E. A., B.SC. LEEDS Asst. Lectr.

WISHART, W. G., B.SC. ,,

Civil Engineering

CHARTERS, R. H., M.I.C.E. Prof.

GEOLOGY and Mineralogy [Prof.

YOUNG, R. B., M.A. GLAS., D.SC. EDIN., F.R.S.E., F.G.S.

MC DONALD, D. P., M.A., B.SC. GLAS. Asst. Lectr. and Demr.

Economic Geology

THE PRINCIPAL Prof.

LAW

MURRAY, J. C. Lectr.

MATHEMATICS

BREIJER, H. G., PH.D. AMST. Prof.

METALLURGY and Assaying

STANLEY, G. H., A.R.S.M., F.I.C., M.I.M.E., M.I.M.M. Prof.

MURRAY, M. T., M.SC. BIRM. Lectr. and Demr.

ADAM, H. R., B.SC. Asst. Lectr. and Demr.

MINING

CELLIER, J. S. Prof.

BRICKHILL, H. G., ASSOC.S.M. BALLARAT Lectr

NATURAL PHILOSOPHY and Physics

LEHFELDT, R. A., B.A. CAMB., D.SC. LOND., F.R.S. S.A. Prof.

VACANT Asst. Lectr. and Demr.

SURVEYING

ROBERTSON, T. E., ASSOC.G.T.C., F.G.S. Prof.

CHANGES IN STAFF

Cellier, J. S., elected Prof. of Mining *vice* Thompson ; Corstorphine, G. S., apptd. Principal and Prof. of Econ. Geol. ; Thompson, G. R., B.Sc., A.R.S.M., Principal and Prof. of Mining, resigned.

GENERAL INFORMATION

Diplomas and Courses. The School grants Diplomas of Associateship in Chem., Technology, Civil Engin., Mech. and Elec. Engin., Metall., Mining. The course in each case extends over 4 years. The minimum age for admission is 16. The 1st Mining Certif. of the Cape Univ. gives entrance to the 2nd year of the course for a candidate not less than 17 years of age. Similarly, the 2nd Certif. admits a candidate of not less than 18 years of age to the 3rd year provided he has done satisfactory class and practical work during the preceding 2 years. A similar concession may be granted to graduates in Science.

Terms run from mid-March to mid-Nov. Engin. students spend the rest of the year in practical work, which in the 3rd and 4th years runs on to mid-May. Other students have to perform 2 mos. practical work between mid-Nov. and mid-March. Provision is made for encouraging students to devote a year after graduation to a course in practical Mining and Metallurgy. The Chem. and Physics courses are recognized by the leading British Medical authorities.

Evening classes (about 60 separate series) are held in Accountancy, Archit., Econ., Pharm., San. Engin., and subjects pertaining to Mining and Tech., and Certifs. are granted to those who attend regularly and pass examns.

HALL OF RESIDENCE. Students who do not live with relatives or friends must reside in "Sunnyside," Parktown (formerly the residence of the Govr.-General and now belonging to the School), or in lodgings approved by the Senate.

SCHOLARSHIPS FOR GRADUATES. The Minister for Education of the Union Govt. is authorized under the Transvaal Educn. Act, 1907, to award bursaries not exceeding £200 p.a., tenable for 1 year at any recognized Univ. or Coll. and renewable for further periods, to candidates who have obtained a Diploma of this School or a degree of the Cape Univ. A scholarship of £250 has been founded by the Transvaal Chamber of Mines for post-graduate research work, either at this School or in some other country, in connexion with problems affecting Mining and Metallurgy practice in S.A Candidates must undertake to practise the profession in the Transvaal for at least 2 years at the end of the year for which the scholarship is granted.

LIBRARY (Seymour Memorial) contains 8000 works. There is a Public Library also at Johannesburg.

UNIVERSITY EXTENSION Evening Classes. Besides the evening courses (held in the School buildings) mentioned under the heading "Diplomas and Courses," others in Practical Maths., Graphics, and Machine Drawing are held for mine employees at 12 centres on the Witwatersrand.

PUBLICATIONS. *Calendar of Day Classes and Evening Classes.*

THE YEAR 1912. *New Posts Created.* Professorship of Econ. Geol., Lect'ship in Applied Maths., Evening Lect'ships in Accountancy and Auditing and Economics. *Number of Students* preparing for Diploma, 102; occasional, 2; evening, 1490. One student is continuing study in Europe.

NATAL UNIVERSITY COLLEGE, PIETERMARITZBURG

[Established by the Natal Univ. Coll. Act, 1909.]

CHAIRMAN OF COUNCIL	Hon. Mr. Justice DOVE WILSON.
CHAIRMAN OF SENATE	Prof. R. B. DENISON, D.Sc., &c.
REGISTRAR	D. ROBB, P.O. Box No. 375, Pietermaritzburg.

PROFESSORS AND LECTURERS

BOTANY and Geology
BEWS, J. W., M.A., D.SC. EDIN. Prof.

CHEMISTRY
DENISON, R. B., M.A. CAPE, D.SC. LEEDS, PH.D. BRES. Prof.

CLASSICS [Prof.
PETRIE, A., M.A. ABERD., B.A. CAMB.

ENGLISH and Philosophy
WATERHOUSE, O., M.A. MANC. Prof.

HISTORY [Lectr.
LUND, H. H., B.A. OX. (Librarian)

LAW [Prof.
INCHBOLD, R. A., B.A., LL.D. CAPE

MATHEMATICS
ROSEVEARE, W. N., M.A. CAMB. Prof.

MODERN LANGUAGES
BESSELAAR, G., M.A. CAPE Prof.

PHYSICS [Lectr.
MESHAM, P., M.SC. LIV. AND CAPE

ZOOLOGY
WARREN, E., D.SC. LOND. Prof.

GENERAL INFORMATION

The College premises (occupying a site of 40 acres) were opened on Aug. 9, 1912, by the Hon. F. S. Malan, Minister of Education of the Union of S. Africa. About £60,000 of public money has been spent on buildings and equipment in the past 3 years. There are B.A. (Pass and Honours) and Natal Law Certif. (Junior and Senior) Classes. There is a Government hostel for women. The academic year is divided into 4 terms. The Maritzburg *Botanical Gardens* are within easy reach of the Coll., as is the Natal Govt. *Museum*, of which Prof. Warren is the Director. The large *Library* of the Natal Soc. is accessible to students of the Coll. on specially favourable terms. A scheme for *Univ. Extension* Lectures has been organized and is coming into operation. A *Scholarship* of £150 for 3 yrs. is awarded to the best B.A.

PUBLICATIONS. The *Calendar*, pubd. in Dec.

NUMBER OF STUDENTS, 66, of whom 37 (including 16 women) are preparing for the B.A.; 22 are Law students; and 7 (men) engaged in special studies. 13 students have up to date gone to Home Univs. to continue their studies.

TRANSVAAL UNIVERSITY COLLEGE, PRETORIA

[Incorporated by Act of Parliament, 1910.]

CHAIRMAN OF THE COUNCIL Sir J. W. WESSELS.

CHAIRMAN OF THE SENATE J. PURVES, M.A., Prof. of English.

SECRETARY D. G. HAFNER.

PROFESSORS AND LECTURERS

BOTANY and Zoology
WAGER, H. A., A.R.C.SC. Lectr.

CHEMISTRY
MALHERBE, D. F. DU T., M.A., PH.D. HALLE Prof.
SPENSLEY, J. C., B.A. CAPE Asst. Lectr. and Demr.

GEOLOGY
DE VILLIERS, L. C., PH.D. FREI., M.E. FREIBERG Lectr.

HISTORY
FOUCHE, L., B.A. CAPE, PH. ET LITT.D. GHENT Prof.

LANGUAGES
Dutch
LE ROUX, T. H., B.A. CAPE, LITT.D. LEID. Prof.
English
PURVES, J., M.A. EDIN. Prof.
Greek
REININK, H., LITT.D. AMST. Prof.
Latin
PATERSON, A. C., M.A. EDIN. AND OX. Prof.
Modern Languages
DE VILLIERS, W. P., B.A. CAPE, PH. ET LITT.D. GHENT Lectr.

LAW
PITTMAN, W., M.A., ADV. Lectr.

MATHEMATICS
DU TOIT, A. E., M.A. CAPE Prof.

PHILOSOPHY and Economics
MACFADYEN, W. A., M.A. OX., LL.D. CAPE Prof.

PHYSICS and Applied Maths.
GUNDRY, P. G., B.SC. LOND., PH.D. GÖTT. Prof.
SHERWOOD, E. T. G., M.A. CAMB. Lectr.

CHANGES IN STAFF

A. E. du Toit, M.A., appointed Prof. of Maths.

GENERAL INFORMATION

COURSES are provided leading to the B.A. (Pass and Honours) and the B.Sc. in Agric. of the Cape Univ. (The headquarters of the Division of Vet. Research of the Dept. of Agric. are at Pretoria.) Courses for the M.A. can be arranged. The 1st year Medical course of the Univ. of Edin. and a course for the First Survey examn. for the Certif. of the Cape Univ. may be taken. The academic year is divided into two terms—Feb. to June and Aug. to Nov.

RESIDENTIAL FACILITIES. A grant has been made for a men's hostel. Women students reside at present in the boarding-house of the Normal Coll.

NUMBER OF STUDENTS preparing for the B.A., 59 (including 13 women); for the B.Sc., 4; for the M.A., 1; Law students, 12; total full-time students, 63; occasional, 4; students continuing study or research in Europe or America, 10.

THE VICTORIA COLLEGE, STELLENBOSCH

[Incorporated by Act of the Cape Legislature in 1881.]

PRESIDENT OF THE COUNCIL	Prof. A. MOORREES.
CHAIRMAN OF THE SENATE	Prof. J. T. MORRISON.
ACTING REGISTRAR	A. F. MARKOTTER, B.A.

PROFESSORS, LECTURERS, ETC.

BOTANY [Lectr.
DUTHIE, MISS A. V., M.A. CAPE
GARSIDE, S., M.SC. MANC. Lectr.

CHEMISTRY
VAN DER RIET, B. DE ST. J., M.A. CAPE, PH.D. HALLE Prof.
VAN DER MERWE, C. D., B.A. CAPE, PH.D. HALLE Prof.

EDUCATION
CILLIE, G. G., B.A. CAPE, PH.D. STRASS. Prof.
PAUW, D. A. A., B.A. CAPE Lectr.
STOCKENSTRÖM, E., B.A. CAPE ,,

GEOLOGY
SHAND, S. J., PH.D. MÜNST., D.SC. ST. AND. Prof.
SCULLY, G. C., M.A. CAPE Asst.

HISTORY [Prof.
BLOMMAERT, W., LITT.D. GHENT
History and Economics
LE ROUX, L., B.A. CAPE, DOC. DE L'U. PARIS Lectr.

LANGUAGES
Classics [Addl. Prof.
VAN BRAAM, P., LITT.D. UTR.
HAARHOFF, T., B.A. CAPE Lectr.
Dutch
JOUBERT, W. A., B.A. CAPE, THEOL.D. AMST. Prof.
PIENAAR, E. C., B.A. CAPE Asst.
English
NOTCUTT, H. C., B.A. LOND. Prof.
JACKSON, M. H., B.A. LOND. Asst.
French and German
STOLK, M., PH.D. LEIP. Lectr.
Greek [Prof.
EDGAR, C. S., B.A. OX., M.A. EDIN.
Hebrew
MARAIS, J. I., B.A. CAPE, D.D. ST. AND. Prof.
Latin
MAC DONALD, A., M.A. EDIN. Prof.

MATHEMATICS
MAC KENZIE, A. H., M.A. ABERD. AND CAMB. Prof.
BARTMANN, A. B., M.A. CAPE Prof.
Applied Mathematics
MORRISON, J. T., M.A., B.SC. EDIN., F.R.S.E. Prof.
VACANT Lectr.

MUSIC
JANNASCH, F. W. (Principal, S.A. Cons.) Lectr.

PHILOSOPHY, Ment. and Moral
WALKER, T., M.A., LL.D. EDIN., LITT.D. HARV. Prof.
BRUMMER, N. J., M.A. CAPE, B.D. ST. AND. Prof.

PHYSICS
MALHERBE, W. E., B.A. CAPE, B.SC. EDIN. Prof.
DALTON, J. P., M.A., B.SC. ST. AND. Lectr.
HARVEY, S. C., B.A. CAPE Lectr.

ZOOLOGY [Prof.
GODDARD, E. J., B.A., D.SC. SYD.
GROBBELAAR, C. S., B.A. CAPE Lectr.

CHANGES IN STAFF

Campbell, J. A., M.A., Lectr. in French and Ger., resigned; Cillie, G. G., transferred from Classics to Educn.; Dalton, J. P., apptd. Lectr. in Phys.; du Toit, A. E., M.A., Lectr. in Applied Maths., apptd. Prof. in the Transvaal Univ. Coll.; Grobbelaar, C. S., apptd. *vice* Malan; Haarhoff, T., apptd. *vice* Horsfall; Horsfall, P., B.A. Cape and Ox., Lectr. in Classics, resigned; le Roux, L., apptd. Lectr. in Hist. and Econ.; MacCulla, J., M.A. R.U.I., Acting Prof. of Classics; Malan, D. E., M.A. Cape, Lectr. in Zool., resigned; Stolk, M., apptd. *vice* Campbell; van Braam, P., apptd. *vice* Cillie.

GENERAL INFORMATION

Courses. The College provides courses leading to the degrees of B.A. and M.A., to the Univ. Certif. in Surveying, and to the 1st and 2nd examns. in Mining. It also provides the courses of the 1st *Annus Medicus* of the Scottish Univs. and T.C.D. in Phys., Chem., Bot., and Zool., enabling students to qualify in Med. after 4 years study instead of 5 in those Univs.; complete courses for the Admission examn. in Arts of the Theol. Seminary of the Dutch Reformed Church; courses in Educn. to meet the various diploma requirements of the Provincial and Union Depts. of Educn. A lectureship in Music has also been established, the work being carried on by the Coll. in conjunction with the Conservatorium. A special course in gold ore reduction is provided, and for post-grad. study special courses are arranged as required. The Coll. also organizes annually one or more courses of *Extension* Lectures in Lit., Hist., and Science.

Residences for Students. There are 4 large boarding-houses in connexion with the Coll., which accommodate about half of the students: The Home, Wilgenhof, Harmonie and Erfurt House. The last two are for women students.

Publications. The *Calendar*, issued in Nov.; the *Students' Quarterly*.

The Year 1912–13. *Benefactions Received.* A bequest of £1187 10s. under the will of the late Mrs. Koopmans-de Wet. *A New Department* of Education has been formed under the direction of the recently appointed Prof. This has been followed by a large increase in the number of students in training for the teaching profession. *Number of Students* reading for Interm. examn. in Arts, 147 (including 14 women); for B.A., 101 (14 women); for Theol. Admission, 36; for Teaching, 38 (21 women); for 1st Professional in Med., 9; post-grad. students, 26 (2 women); special courses, 10 (6 women); continuing studies in Europe, about 75. *Degrees Obtained* (in 1912). B.A., 31; M.A., 1. *New Buildings.* A building costing £10,000 is in course of erection for the Educn. Dept. and will be ready for use

in Feb. 1914. A recent Parliamentary grant has been made to the Coll. for further buildings and equipment. It is proposed to begin at once with new Labs. for the Depts. of Applied Maths., Bot., Geol., and Zool.

HUGUENOT COLLEGE, WELLINGTON

[Incorporated by Act of the Cape Legislature, 1907, as a College for Women.]

PRESIDENT — Miss A. E. BLISS, Litt.D.

PROFESSORS AND LECTURERS

BOTANY and Philosophy
STONEMAN, MISS B., D.SC. CORN., U.S.A. — Prof.

CHEMISTRY — [Prof.
MINOR, MISS J., B.SC. DRURY, U.S.A.

CLASSICS
SARGENT, MISS H. A., M.A. OBER., U.S.A. — Prof.
WILLIAMS, MISS M. V., B.A. CAPE, C.T. CAMB. (absent) — Lectr.
HOTHERSALL, MISS K. D., C.T. CAMB. (officiating)

ENGLISH LANG. and Lit.
SNELL, MISS F. M., M.A. OBER., U.S.A. (absent) — Prof.
AULESBROOKE, F. W., B.A. CAMB. (officiating)

HISTORY and French — [Prof.
STAFFORD, MISS S., M.A. N.U.I.

HORTICULTURE — [Lectr.
GARLICK, MISS W., SWANLEY COLL.

MATHEMATICS — [Prof.
JOHNSON, MISS A., PH.B. NEB., U.S.A.

MODERN LANGUAGES and Lit.
VAN RIEL, MISS J. M., L.N.C. LEYD. — Prof.

PHYSICS
LEITER, MISS S. B., M.A. COL. — Prof.

ZOOLOGY and Geology
MAURY, MISS C. J., PH.D. CORN., U.S.A. — Lectr.

CHANGES IN STAFF

Garlick, W., appointed Lectr. in Horticulture ; Maury, C. J., apptd. Lectr. in Zool. and Geol. ; van Niekerk, Miss L., B.A., L.N.C., Prof. of Mod. Langs., resigned ; van Riel, J. M., apptd. *vice* van Niekerk.

GENERAL INFORMATION

This College prepares students for the Cape Interm. and B.A. examns. Accommodation for students is provided in the Coll. The academical year is divided into 4 terms.

PUBLICATIONS. *College Calendar*, pubd. in Dec. ; *Huguenot Quarterly News Letter*, 1s.; *Huguenot Annual*, price 1s. 6d., pubd. in Nov.

THE YEAR 1912–13. *Benefactions Received* during the year: £700 from local sources; £208 from U.S.A.; £500 from Govt. (special grant) for equipment. *New Posts Created.* Lectureships in Zool. and Geol. and in Hortic. *Number of Students*: 60 (including 15 men). Students continuing study or research in Europe or America, 10. *Degrees Obtained* in 1911, 13; in 1912, 4.

DALHOUSIE UNIVERSITY, HALIFAX, NOVA SCOTIA

[Obtained University powers 1841. Constitution modified 1863.]

CHAIRMAN OF THE BOARD OF GOVERNORS	GEORGE S. CAMPBELL.
PRESIDENT OF THE UNIVERSITY	A. STANLEY MACKENZIE, Ph.D., D.C.L., F.R.S.C.
REGISTRAR	Prof. M. MACNEILL.
CORRESPONDING OFFICERS OF THE PROFESSIONAL FACULTIES	
Law	The DEAN, R. C. WELDON, D.C.L. Mt. All., Ph.D. Yale, K.C.
Medicine	The SECY., A. W. H. LINDSAY, B.A., M.D., C.M. Dal., M.B., C.M. Edin.
Dentistry	The DEAN, F. WOODBURY, D.D.S., P.C.D.S.

PROFESSORS, LECTURERS, ETC.

ANATOMY (v. also *Medicine*)
LINDSAY, A. W. H., B.A., M.D., C.M. DAL., M.B., C.M. EDIN. Prof.
MACAULAY, M. A., M.D., C.M. Demr.
RANKINE, J., B.A., M.D., C.M. Asst. Demr.

BIOLOGY [Asst. Prof.
MOORE, C. L., M.A., F.R.S.C.

CHEMISTRY
MACKAY, E., B.A. DAL., PH.D. J. HOPK. McLeod Prof.
NICKERSON, C. B., M.A. CLARK Instr.

CLASSICS [McLeod Prof.
MURRAY, H., B.A. LOND., LL.D. TOR.
STEWART, J. MC G., B.A. Tutor.
LOGAN, J. W., M.A. Lectr.
BUTLER, G. K., M.A. Lectr.

DENTISTRY
Crown and Bridge Work, &c.
THOMPSON, G. K., D.D.S. P.D.C. Prof.
OXNER, W. C., D.D.S., B.C.D.S. Lectr.

Genl. and Oral Surg. and Anæsth.
WOODBURY, F. V., M.D., C.M. DAL., L.R.C.S. AND L.R.C.P. EDIN., L.F.P.S. GLAS. Prof.

History, Ethics, and Jurispr.
WOODBURY, F., D.D.S., P.C.D.S. Lectr.

Operative Dentistry
RYAN, F. W., D.D.S. MICH. Prof.
BECKWITH, W. H. H., D.D.S. PENN. Lectr
MACDONALD, R. E., D.D.S. P.D.C. ,,

Orthodontia
WOODBURY, W. W., B.SC., D.D.S. P.D.C. Prof.

D. Path. and Therap.
COGSWELL, A. W., M.D., C.M. HFX., M.C., D.D.S. PENN. Prof.

Prosthetic Dentistry
RITCHIE, S. G., B.A. N. BRUNS., D.M.D. T.D.C. Prof.
WOODBURY, R. H., D.D.S. P.D.C. ,,
WOODBURY, H., D.D.S. P.D.C. Lectr.
FLUCK, G. H., D.D.S. P.D.C. Lectr.

ENGINEERING, Civil
FINLAYSON, J. N., M.SC. MCG. Prof.

GEOLOGY [Lectr.
MCINTOSH, D. S., B.A., M.SC. MCG.

HISTORY and Pol. Econ. [Prof.
TODD, J. E., M.A. EDIN. AND OX.

HYGIENE (v. also *Med.—Therap.*)
POTTER, J. L., M.D., C.M., CAN. PERMT. ARMY MED. CORPS Lectr.

LANGUAGES and Literature
Biblical Literature [Lectr.
FALCONER, J. W., M.A. EDIN., D.D.
KENT, H. A., M.A. Lectr.
English Lang. and Lit.
MACMECHAN, A., B.A. TOR., PH.D. J. HOPK. George Munro Prof.
SHANNON, M. JOSEPHINE Reader.
Modern Languages
JONES, H. P., B.A. VIND., PH.D. HEID. McLeod Prof.

LAW (v. also *Med. Jurispr.*)
Const. and Internat. Law
WELDON, R. C., D.C.L. MT. ALL., PH.D. YALE, K.C. George Munro Prof.
Contracts
RUSSELL, HON. B., M.A., D.C.L. MT. ALL.* Prof.
Crimes and Torts
WALLACE, HON. W. B., LL.B.† Lectr.
Evidence [Lectr.
PATTERSON, HON. G., M.A., LL.B.†
Insurance [Lectr.
RITCHIE, HON. J. J., LL.B. HARV.*
Partnership and Corporations
DRYSDALE, HON. A.* Lectr.
Practice, &c.
MCINNES, H., LL.B., K.C. Lectr.
ROGERS, T. S., B.A. AC., K.C. ,,
RUSSELL, B. W., B.A. MT. ALL., LL.B. Lectr.
Real Property, Wills, &c. [Lectr.
O'CONNOR, W. F., B.C.L. VIND., LL.B.
Statutes and Procedure
JENKS, S., LL.B., K.C., DEPUTY ATTORNEY-GENL. Lectr.

MATHEMATICS
MACNEILL, M., M.A. HARV. Prof.

MEDICINE and Surgery
Diseases of the Eye, &c. [Lectr.
MATHERS, R. E., M.D. NEW YK.
Skin Diseases
ROSS, J., M.D., C.M. MCG. Lectr.
Materia Medica
BUCKLEY, A. F., M.D., C.M. DAL., PHM. LIC. MONTR. Prof.
MCLEOD, E. M., M.N.S. PHM. SOC. Demr.
Medical Jurispr.
O'CONNOR, W. F., LL.B. DAL., B.C.L. VIND. Lectr.
BLACKADDER, E., M.A. AC., M.D., C.M. Lectr.
Medicine [Prof. (*Clin. Med.*).
SMITH, M. A. B., M.D. NEW YK., M.D., C.M. VIND.
SILVER, L. M., B.A. VIND., M.B., C.M. EDIN.
Prof. (*Med. and Clin. Med.*).
MURRAY, L. M., M.D., C.M. MCGILL Prof.
FORREST, W. D., M.D., C.M., M.R.C.S. ENG., L.R.C.P. LOND. Lectr.
MACKENZIE, K. A., M.D., C.M. (*Anat.* Demr.) Lectr.
Mental Diseases [Prof.
HATTIE, W. H., M.D., C.M. MCG.
Obst. and Dis. of Women and Children [Prof.
CURRY, M. A., B.A. VIND., M.D. N.Y.
ALMON, W. B., M.D., C.M. Assoc. Prof. (*Obst.*).

* Judge of the Supreme Court of N.S. † Judge of the County Court.

Path. and Bacteriology

LINDSAY, M. A., B.SC. DAL., M.B. EDIN. Prof.

Surgery and Clin. Surg. [Prof.

HOGAN, E. V., M.D., C.M. MCG., M.R.C.S. ENG., L.R.C.P. LOND.

CHISHOLM, M., M.D., C.M. MCG., L.R.C.P. LOND. Prof. (*Clin. Surg.*).

STEWART, J., M.B., C.M., LL.D. EDIN. Prof. (*Surg.*).

WEATHERBE, P., M.B. EDIN. Lectr. (*Surg.*), Demr. (*Oper. Surg.*).

THOMAS, L., M.D., C.M., M.R.C.S. ENG., L.R.C.P. LOND. Demr. (*Pract. Surg.*).

Therapeutics

CAMPBELL, D. A., M.D., C.M. Prof.

CORSTON, J. R., B.A., M.D., C.M. Lectr. (*T.* and *Hygiene*).

PHILOSOPHY [G. Munro Prof.

LAIRD, J., B.A. CAMB., M.A. EDIN.

PHYSICS [G. Munro Prof.

BRONSON, H. L., PH.D. YALE

THE PRESIDENT Lectr.

JOHNSTONE, J. H. L., B.A. Instr.

PHYSIOLOGY

HARRIS, D. F., C.M., M.D. GLAS., B.SC. LOND., D.SC. BIRM., F.R.S.E. Prof.

MACINTOSH, G. A., M.D., C.M. Demr.

CHANGES IN STAFF

Estey, J. A., B.A. Ac. and Ox., Ph.D. Wis., Assoc. Prof. of Hist., &c., resigned.

Finlayson, J. N., appointed *vice* Howe.

Howe, C. D., S.B. Mass. I.T., Prof. of Civ. Engin., resigned.

Laird, J., Lectr. in the Univ. of St. And., apptd. *vice* Magill.

Magill, R., M.A. R.U.I., Ph.D. Jena, Prof. of Philos., apptd. Chairman of Canadian Grain Commission.

Todd, J. E., Assoc. Prof. of Hist. in McGill, apptd. *vice* Estey.

GENERAL INFORMATION

Appointments to the Board of Govrs. are made by the Governor-General in Council on the nomination of the Board.

FACULTIES. Arts and Science; Law; Medicine; Dentistry. The Arts and Science Faculty includes Music, Pharmacy, and Engineering.

TERMS, 1913–14. First term, Aug. 26 to Dec. 20; second, Jan. 6 to April 30.

DEGREES, &c. Arts—B.A., M.A.; Science—B.Sc., M.Sc.; Law—LL.B., Honorary LL.D.; Medicine and Surgery—M.D., C.M.; Dentistry—D.D.S.; Pharmacy—B.Phm.; Music—Mus.Bac., Diploma of Lic. of Mus.

The Faculties provide complete instruction in courses leading to all the degrees except in Music and Pharmacy, in which the requisite professional teaching is given by the Halifax Conservatory, the N.S. Coll. of Pharmacy, and other approved institns. Attendance at these

courses is a condition precedent to admission to examn. for the Bachelorship. The minimum age for admission to any of the courses is 16.

Arts and Science. The course for the B.A. or B.Sc. extends over 4 years from the Matricn. examn., which includes Latin and either Greek or French or German, Engl., Hist., and Maths. By suitable selection of elective subjects students looking forward to the study of Divinity, Law, Med., or Engin. may take courses in Arts or Science that will enable them to reduce the normal period of study for the professional degree by 1 or 2 years. Certain High School Certifs. give admission to the 2nd year. If a sufficiently high standing is obtained in the first 2 years an Honours course may be taken. The compulsory subjects for the B.A. are—Latin or Greek ; Engl. ; 1 other language ; Hist. ; Philos. ; Maths. ; Chem. ; one other Science subject. Those for the B.Sc. are—Engl. ; French ; German ; Maths. ; Phys. ; Chem. ; Drawing. Honours courses are provided in Class., Latin and Engl., Greek and Engl., Engl. and Engl. Hist. ; Econ. and Hist., Philos., Maths., Phys., Chem. and Chem. Phys., Geol. and Geol. Chem. Certain other ordinary classes have to be taken simultaneously. A candidate for Honours may defer his examn. in the Honours subjects until a year after passing the examns. in the ordinary subjects of the 4th year. Students holding certain diplomas of the affiliated Prince of Wales Coll., Charlottetown, are admitted to the 3rd, 2nd, or 1st year, as the case may be, of the B.A. course. The M.A. is given for successful completion of an approved one-year course of graduate work, which may consist of private reading, attendance at the Univ. being optional.

Law. The course covers 3 years, reducible to 2 for a B.A. of a N. Bruns. or N.S. Univ. who has taken Law subjects for part of his B.A. course. The Matricn. examn. includes Latin and either Greek or French or German, and it, or its equivalent, must be completely passed before entering the 2nd year of the course. The Prelim. Law examns. in any of the Canadian Provinces or Newfoundland or Brit. W. Indies are accepted as equivalent. The course includes participation in Moot Court proceedings.

Medicine. The work of the Halifax Med. Coll. was taken over by the Univ. in 1911. Professional examns. are conducted jointly by the Univ. and the Provincial Med. Board. The M.D. and C.M. are conferred simultaneously. The course covers 5 years. The Matricn. examn. (including Latin and either Greek or French or German) or its equivalent must have been completely passed before entering the 2nd year of the course. Annual examns. must be passed in due order. Clinical instruction is given in the Vict. Gen. Hospl. (170 beds), Children's, Lying-in, City Home, and N.S. Ment. Dis. Hospls., and visiting Dispensary.

Dentistry. In 1912 the Maritime Dent. Coll. was merged in the Univ. The Provincial Dental Board has appointed the examiners of

the Faculty (together with 7 other dentists) to act as the Provincial Examining Board for registration. Hence a successful candidate for the D.D.S. who conforms to the regns. of the Board is qualified without further examn. to practise in N.S. The course covers 4 years, the first 3 of 8 mos. and the last of 7 mos. The Matricn. examn., as for Med., or its equivalent, must be completely passed before entering the 3rd year. Annual examns. must be passed in due order. The M.D., C.M. and D.D.S. can be reached by concurrent courses in 7 years.

Music. The course for the Lic.Mus. extends over 2 years. That for the Mus.Bac. over 3. Candidates for admission to any of the examns. for either must have passed Matricn. in Engl., and before the Final examn. must have completed Matricn. and given evidence of a good reading knowledge of French and German.

Pharmacy. Candidates for the B.Phm. must have passed Matricn. and have had 4 years practical experience and attended full courses in the prescribed subjects covering at least 1 year.

Engineering. A 2 years course is provided. There is a special Matricn. examn. including Engl., Hist. and Geog., Maths., French or German, and Latin or Greek or higher French or German. Candidates who have passed only the ordinary Matricn. will need 3 years to complete the requirements of the N.S. Tech. Coll. course. A matriculant in Engin. must have passed at least in Maths. before entering the Engin. course and must have passed completely before entering the 2nd year of the course. *See also* Appendix VI.

Women are admitted to all courses and degrees on equal terms with men.

Residential Facilities. A register of approved lodgings is kept, and students not residing with relatives or friends must reside in one of these. A residence for women has been opened under the auspices of the Dal. Alumnæ Assocn.

Libraries. In addition to the Univ. (16,000 vols.) and Law (8000 vols.) libraries, both belonging to the Univ., students can obtain access to the Provincial Science (48,882 vols.), Mining Society's, Legislative, Citizens' Free, Presbyt. Theol. Coll., and Cogswell Med. Libraries.

The Museum includes large collections of birds, Indian antiquities, and Geol. specimens. Students can also use the Provincial Mus. of Geol., Mineral., and Zool.

Laboratories. The Physical Lab. accommodates 16, the Chem. 101, and the Biol. 25 students working simultaneously. There are also Geol., Mineral., Med., and Dent. Labs.

PUBLICATIONS. The *Calendar*, issued in July; the *President's Annual Report*, in Sept.; *Gazette*, 10 times during term, price $1. *See also* p. 316.

THE YEAR 1912–13

BENEFACTIONS. $450,000 has been raised for the purchase of a site for erection of new buildings and to increase the endowment fund.

SPECIAL EVENT. Corner-stone of new Science building laid by H.R.H. the Duke of Connaught in Aug. 1912.

NUMBER OF STUDENTS preparing for Degrees or Diplomas—Arts and Science, 272 (including 86 women); Law, 40; Med., 77 (4 women); Dent., 13. Special and occasional (including 22 Law) students, 47.

DEGREES CONFERRED. M.A., 2 (women); M.Sc., 1; B.A., 35 (including 10 women); B.Sc., 4; LL.B., 12; M.D., C.M., 7; D.D.S., 2.

NEW BUILDINGS. Science building for Chem. and Phys. under construction.

OTHER NEW DEVELOPMENTS. Residence for women students opened Sept. 1912 (independent of the Univ.).

UNIVERSITY OF DUBLIN, TRINITY COLLEGE

CHANCELLOR	VISCOUNT IVEAGH, K.P., LL.D.
VICE-CHANCELLOR	The Rt. Hon. D. H. MADDEN, LL.D.
VISITORS OF TRINITY COLLEGE	THE CHANCELLOR (or Vice-Chancellor).
	THE LORD CHIEF JUSTICE.
PROVOST	A. TRAILL, LL.D., M.D., M.Ch.

SENIOR FELLOWS OF THE COLLEGE

Williamson, B., M.A., Sc.D.
Vacancy *vice* T. K. Abbott, deceased.
Gray, T. T., M.A., Registrar.
Mahaffy, J. P., D.D., Mus.Doc., Vice-Provost
Tarleton, F. A., LL.D., Sc.D., Auditor.
Tyrrell, R. Y., M.A., Litt.D., Senior Dean and Catechist.
Cathcart, G. L., M.A., Bursar.

JUNIOR FELLOWS OF THE COLLEGE

Burnside, W. S., M.A., Sc.D.
Purser, L. C., M.A., Litt.D., Junior Bursar and Registrar of Chambers
Roberts, W. R. W., B.D.
Culverwell, E. P., M.A.
O'Sullivan, A. C., M.A., M.D.
Beare, J. I., M.A.
*†Russell, R., M.A.
Fry, M. W. J., M.A.
*Wilkins, G., B.D.
†Macran, H. S., M.A.
*Gwynn, E. J., M.A.
*Exham, G. A., M.A.
Thrift, W. E., M.A.
Smyly, J. G., M.A.
*Mooney, G. W., M.A.
*Kennedy, W., M.A.
*†Rogers, R. A. P., M.A.
*Goligher, W. A., M.A., Litt.D.
*Fraser, J., M.A., Junior Dean.
*†Kelleher, S. B., M.A.
*†Alton, E. H., M.A.
Gwynn, R. M., B.D., Hon. Chaplain.
*†Webb, G. R., M.A.
*Tate, R. W., M.A.
*Thrift, H., M.A., Junior Proctor.
†Canning, H., M.A.
Stewart, S. G., M.A.
†Luce, A. A., M.A.
†Johnston, J., B.A.

PUBLIC ORATOR	L. C. Purser, Litt.D.
LIBRARIAN	Vacant.
REGISTRAR	T. T. Gray, M.A.
LADY REGISTRAR	Lucy P. Gwynn.
WARDEN OF TRINITY HALL	Eliz. M. Cunningham, M.A.

* Tutor Fellows. † Hon. Lecturers for 1913–14.

PROFESSORS, LECTURERS, ETC.

ANATOMY
DIXON, A. F., M.B., SC.D. Univ. Prof.
HOLTBY, J. R. D., M.B., B.S. Chief Demr.
Anatomy, Comp., v. *Zool.*

ASTRONOMY
PLUMMER, H. C., M.A. OX., Royal Astron. of Ireland Prof.
MARTIN, C. Asst.

BOTANY
DIXON, H. H., SC.D. Univ. Prof.
ATKINS, W. R. G., M.A. Asst.

CHEMISTRY
YOUNG, S., SC.D. Univ. Prof.
RAMSDEN, W. C. Asst.
KRALL, H., B.A. Demr.
Applied Chemistry
WERNER, E. A. Prof.

CLASSICS (v. also *Langs.*)
THE TUTORIAL STAFF * Lectrs.

DENTISTRY
D. Surgery and Pathol. [Lectr.
BAKER, A. W. W., M.D., M.DENT. SC.
STORY, W. G. T., M.B. Lectr.
D. Mechanics
COCKBURN, J., L.D.S. Lectr.
Orthodontia
FRIEL, E. S., M.DENT. SC. Lectr.

DIVINITY
GWYNN, J., D.D. Regius Prof.
WHITE, N. J. D., D.D. Deputy for Reg. Prof.
GREGG, J. A. F., B.D. Abp. King's Prof.
JENNINGS, J. A., M.A. Wallace Lectr.
LAWLOR, H. J., D.D. Asst.
GREEN, D. C., B.D. Asst.
CARLETON, J. G., D.D. Asst.
ROBERTS, W. R. W., B.D. Asst.
GWYNN, R. M., B.D. Asst.
LUCE, REV. A. A., B.D. Asst.
YOUNG, E. S., B.D. Asst.
Biblical Greek
WHITE, N. J. D., D.D. Prof.
WILKINS, G., B.D. (Prof. of Hebrew) Temporary Deputy for Prof.
Ecclesiastical History
LAWLOR, H. J., D.D. Prof.
English Bible
WHITE, N. J. D., D.D. Lectr.
Pastoral Theology
JENNINGS, J. A., M.A. Prof.

EDUCATION
CULVERWELL, E. P., M.A. Prof.

ENGINEERING, Civil
ALEXANDER, T., M.A.I. Prof.
JACKSON, J. T., M.A. Asst.
LILLY, W. E., M.A. Asst.
Elec. Engin. Practice
TATLOW, W., M.A., B.A.I. Lectr.
Electric Traction
HARRIS, G. M. Lectr.
Mechanical Engin.
LILLY, W. E., M.A., M.A.I., SC.D. Lectr.

GEOGRAPHY (for I.C.S.)
POOLE, H. H., B.A. Lectr.

GEOLOGY and Mineralogy
JOLY, J., M.A., SC.D. Prof.
COTTER, J. R., M.A. Research Asst.
Palæontology
SMYTH, L. B., B.A. Lectr.

HISTORY (v. also *Div.—Eccl. Hist.*)
Ancient H. and Class. Archæol.
GOLIGHER, W. A., M.A., LITT.D. Prof.
Modern History
VACANT Erasmus Smith's Prof.
VACANT Lecky Prof.
MAXWELL, CONSTANTIA E., M.A. Lectr.

* *v.* Notes *below under* "Arts."

Mod. Hist. and Pol. Sc. (for I.C.S.)
FARRAN, A. C., B.A. Lectr.

LANGUAGES and Literature
Anglo-Saxon
WILLIAMS, R. A., LITT.D. Lectr.
Arabic, Persian, and Hindustani
KING, L. WHITE, LL.D. Prof.
Celtic Languages
GWYNN, E. J., M.A. Lectr.
Classical Composition
TATE, R. W., M.A. Lectr.
English Literature
TRENCH, W. FITZ J., M.A. Prof.
French (v. also *Romance*)
THE TUTORIAL STAFF * Lectrs.
French and Ger. (for I.C.S.)
CERF, A. J. W., LITT.D. Lectr.
German
WILLIAMS, R. A., LITT.D. Prof.
Greek (v. also *Div.—Bibl. G.*)
BEARE, J. I., M.A. Regius Prof.
Hebrew
WILKINS, G., B.D. Prof.
WHITE, N. J. D., D.D. Lectr.
KENNEDY, W., M.A. Lectr.
ALTON, E. H., M.A. Lectr.
Irish
MURPHY, J. E. H., M.A. Prof.
Latin
SMYLY, J. G., M.A. Prof.
Romance Languages [Prof.
RUDMOSE-BROWN, T.B., M.A., D.LITT.
Sanskrit and Comp. Philol.
COLLINS, M., B.A., PH.D. Prof.
Tamil, Telugu, Burmese, Hindi, and Bengali
POPE, J. V. S., M.A. CAMB. Prof.

LAW
BASTABLE, C. F., LL.D. Reg. Prof.
Civil Law and Gen. Jurispr.
MATURIN, C., LL.B. Prof.
English Law (for I.C.S.)
DOCKRILL, J., M.A. Lectr.
Feudal and English Law
BAXTER, J. S., LL.B. Reg. Prof.
Penal Legisln.; Const. and Crim. Law, and Evidence
JULIAN, E. L., B.A. Reid Prof.

MATHEMATICS
BURNSIDE, W. S., M.A., SC.D. Erasmus Smith's Prof.
RUSSELL, R., M.A. Donegal Lectr.
THE TUTORIAL STAFF * Lectrs.
JOHNSTON, J. P., SC.D. Lectr. for I.C.S.

MEDICINE AND SURGERY
Materia Med. and Pharmacy
SMITH, W. G., M.D. King's Prof.
Med. Jurispr. and Hygiene
BEWLEY, H. T., M.D. Lectr.
Medicine, Practice of
CRAIG, J., M.D. King's Prof.
Midwifery
WILSON, T. H., F.R.C.S.I. King's Prof.
Pathology
O'SULLIVAN, A. C., M.D. Lectr.
WIGHAM, J. T., M.B. Asst.
STOKES, A., M.B. Asst.
Physic
LITTLE, J., M.D., LL.D. Reg. Prof.
Surgery
BALL, SIR CHARLES B., BART., M.D., M.CH. Regius Prof.
TAYLOR, E. H., M.D. Prof.
PEARSON, W., M.D. Asst.

MILITARY SCIENCE
Mil. Engin. and Topog.
BACKHOUSE, M., M.A.I. Lectr.
Mil. Hist., Strategy and Tactics
FULCHER, C. Lectr.

MUSIC
BUCK, P. C., M.A., MUS.DOC. Prof.

ORATORY
VACANT Erasmus Smith's Prof.

* *v.* Notes *below under* "Arts."

PHILOSOPHY, MORAL

MACRAN, H. S., M.A. Prof.

Mental and Moral Science

THE TUTORIAL STAFF * Lectrs.

PHILOSOPHY, NATURAL

FRY, M. W. J., M.A. Univ. Prof.
KELLEHER, S. B., M.A. Asst.
THE TUTORIAL STAFF * Lectrs.

PHYSICS

THRIFT, W. E., M.A.
Erasmus Smith's Prof. of Nat. and Exper. Philos.
THRIFT, H., M.A. Asst.
COTTER, J. R., M.A. Asst.
POOLE, H. H., M.A. Asst.

PHYSIOLOGY

THOMPSON, W. H., SC.D. King's Prof. of the Institutes of Medicine.
CALDWELL, W., M.A. Asst.
NESBITT, G. E., M.D. Asst.
CLOTWORTHY, H. R. Asst.

POLITICAL ECONOMY (v. also *Hist., Mod.*)

BASTABLE, C. F., LL.D. Prof.

ZOOLOGY and Comp. Anat.

MACKINTOSH, H. W., M.A. Prof.

CHANGES IN STAFF

Berry, T. S., Asst. to Reg. Prof. of Div., apptd. Bp. of Killaloe.
Clotworthy, H. R., apptd. *vice* Wallace.
Cotter, J. R., apptd. *vice* Fletcher.
Dowden, E., Prof. of Eng. Lit. and Oratory, deceased.
Fletcher, A. L., Asst. to Prof. of Geol., resigned.
Green, D. C., Asst. to Abp. King's Prof. of Div., promoted *vice* Berry.
Johnston, Joseph, elected Fellow of Trin. Coll.
Luce, A. A., promoted *vice* Green.
Purser, Miss O., apptd. temp. lectr. in Eng. Lit. during vacancy in Prof'ship.
Wallace, T. A., Asst. to King's Prof. of Institutes of Med., resigned.
Weaver, J. R. H., Prof. of Mod. Hist., resigned on election to a Fellowship in Hist. at Trin. Coll., Ox.

GENERAL INFORMATION

DEPARTMENTS. There are Committees for each of the Arts Honour Schools and for Hebrew and Oriental Langs., Law, Physic, Engin., Indian and Home Civil Service, Army, Music, Educn., Agric.

MATRICULATION. There is an entrance examn. in which Latin is an obligatory subject.

UNIVERSITY TERMS. Terms are kept during the undergraduate course, either by lectures or by examns. But terms in Div., Law, Med. (including Surg., Obst. Sc., and Dent. Sc.), Engin., Agric., and Army School must be kept by attendance on the Lectures of the Profs. and therefore require residence either in the Coll. or in its vicinity. This condition does not apply to the B.Mus., B.Sc., or B.A. The

* *v.* Notes *below under* "Arts."

terms of 1913–14 begin as follows: Michs. Oct. 10, Hilary Jan. 10, Trin. April 15. Arts Lectures terms commence about the beginning of Nov., Feb., and May.

Degrees, Diplomas, &c. B.A., M.A., Litt.D.; B.D., D.D.; LL.B., LL.D.; M.B., M.D., B.Ch., M.Ch.; Sc.B., Sc.D.; B.A.O., M.A.O.; B.Dent.Sc., M.Dent.Sc.; B.A.I., M.A.I.; Mus.Bac., Mus.Doc.; Diplomas in Med., Surg., Obst. Sc., Pub. Health, Educn., Elec. Engin., Econ. and Commerc. Knowledge; Licences in Engin. and in Dental Science; Certificate in Educn.; Testimonium in Divinity.

Arts. Distinctive features of the Univ. are, firstly, that every student who wishes to obtain a Professional degree has also to obtain an Arts degree, and secondly that there are compulsory subjects in the *Pass* B.A. course, even in the last two years of the course, when considerable latitude of choice is allowed in other Univs., *e.g.* at the Degree examn. Ethics and Astron. are compulsory. The demand for teaching in the subjects of the Pass Arts course which arises from these two causes is met by the Tutor Fellows (see list above). The course lasts four years, but it is only necessary to keep two out of the three terms in each year, or eight in all. It is also possible to complete the course within three years from entrance by taking the final examn. of the first year at the time of entering and keeping all three terms of the second year. Every student must choose one of the Tutor Fellows (see list above) as his Tutor and should apply to him for all information before and after entrance.

The *Honour* B.A.—known as a *Moderatorship*—can be taken in ten different groups (viz. 1 Math., 2 Class., 3 Ment. and Mor. Philos., 4 Exp. Sc., 5 Nat. Sc., 6 Hist. and Pol. Sc., 7 Mod. Lit., 8 Leg. and Pol. Sc., 9 Eng. Sc., 10 Celtic), and undergraduate honours in the same subjects (except No. 9) can be obtained in each academic year and in some subjects in each term. The course lasts four years in the case of Nos. 1, 2, 4, 5, 6, 7, three years in Nos. 3 and 10, and two years in No. 8. Honour candidates are also required to pass the examinations for Pass candidates, with the exception of the Pass B.A. Examination. Instruction in these Honour courses is given partly by the Profs. and partly by the Tutorial staff.

A B.A. of three years standing may be admitted M.A. There is no examn. for this, nor is a thesis required.

Dublin possesses certain special attractions for students of history (especially Irish History or Genealogy), viz. (1) The large quantity of MSS. in Trinity College library, (2) The State papers in the Irish Record Office.

Divinity School. Registrars—The Reg. and Abp. King's Profs. The B.D. and D.D. are open to all candidates, whatever be their religious convictions. The B.D. is obtained by an examn. open to all grads. in Arts, and the D.D. is open to any B.D. of three years standing, and is awarded on a thesis or published Theol. work.

Although membership of the Church of Ireland or England is not

compulsory, the great majority of Divinity students intend to serve in the ministry of these Churches or their Foreign Missions. The course for the Divinity Testimonium lasts two years, and only graduates in Arts can join the second year classes. There is a Dub. Univ. Mission to Belfast—a settlement in a working-class district. A Social Service Society owns tenement houses in one of the worst parts of Dublin, the collection of rents and management being in the hands of a Committee of Students. There are two Univ. Missions—to Chota Nagpur and to Fukien.

Law School. Registrar—R. Russell, M.A. A large proportion of the Irish barristers and solicitors get their legal education in this school, the instruction being supplemented by the lectures of the Benchers of King's Inns and of the Incorporated Law Society. The course covers 2 years. Dublin is the seat of the Irish High Court—the Courts being within a quarter of an hour's walk of Trin. Coll.

Medical School. Registrar—A. F. Dixon, Sc.D. Asst. Registrar —Capt. Allen, R.A.M.C. In numbers this is by far the most important school; there are about 250 students in it.

A B.Ch. of this Univ. of three years standing who has had two years professional practice or study may be admitted to the M.Ch. examn. A candidate for the M.D. degree must be of M.A. standing and have passed the Final Examn. in Med., Surg., and Midwifery, and must present a thesis or pass an examn. Postgraduate Medical Classes (a three weeks course) in all branches are held in June and in the autumn. Hon. Sec.—A. R. Parsons, M.D. Facilities are given to doctors wishing to take the D.P.H., and opportunities for research in Anatomy, Physiology, and Bacteriology are provided. It is expected that a School of Tropical Medicine will shortly be started. Dublin possesses many general hospitals which are well equipped and which draw patients not only from the city but from the whole of Leinster. The multiplicity of small hospitals involves a large number of appointments available for med. graduates. The Victoria Eye and Ear Hospital and Coombe Lying-in Hospital are well known, and the Rotunda Hospital has a world-wide reputation.

The Engineering School (Registrar—W. E. Thrift, M.A.) provides a 3-years course in Surveying and Gen. Engin., with an optional fourth year in Elect. and Mech. Engin. A B.A.I. who has been actually engaged upon engin. works for three years may be admitted M.A.I. The numbers in the school have been steadily increasing of late, and now about 25 students are qualified annually.

School of Agriculture. Registrar—W. G. Hodson, M.A. This is more or less in an experimental stage, there being, so far, very few students. The practical agricultural work is carried on in connexion with the Govt. Agric. Dept., which has a farm for teaching purposes near Dublin. The course is a two years one.

Training Dept. for Secondary Teachers. This exists for women students only, and is carried on in connexion with Alexandra Coll., Dublin, where most of the work is done. The Prof. of Educn. gives lectures in Trin. Coll.

The Diplomas and Certificate in Education and in Economics and Commercial Knowledge are awarded on the results of examns. which are open to anyone of prescribed general education.

Registrar of the School of Education—E. P. Culverwell, M.A.

Indian, Colonial, and Home Civil Service School. Registrar—E. H. Alton, M.A. Lectures are given in the subjects of the open competition; also in Indian Langs., &c., to the successful candidates.

Army School. Registrar—G. R. Webb, M.A. A 2-years course of lectures in Military Subjects is provided. Commissions are allotted to Trin. Coll. by the Army Council (*v.* Appendix II).

Officers' Training Corps. The University contingent comprises Infantry, Medical, Engineering, and Army Service Corps units; total strength about 400.

Post-graduate Lectures in Advanced Mathematical Physics are delivered by the Prof. of Nat. Philos., but there is no other post-grad. teaching (except the medical classes mentioned above and assistance to Science Research Students).

Recognition of other Univs., &c. Students in Arts of *Oxford* and *Cambridge* desiring to become members of the Univ. of Dublin are allowed credit for their previous academic record according to the rules to be found in the Calendar.

No students or graduates of any other Univ. (*i.e.* other than Oxford or Cambridge) are allowed to take the B.A. unless they have kept at least two academic years at Trin. Coll.

No student is allowed to take any of the degrees in Med., Surg., and Midwifery unless he has attended at least three years of the prescribed curriculum in the School of Physic, Trin. Coll.

A B.A. or M.A. of any of the undermentioned Univs. may be allowed by special permission of the Board credit for the first two years and the examn. held at their expiration, provided that if he has not studied as part of the approved courses in his Univ. any of the compulsory subjects of that examn. the Sen. Lectr. may require him to pass a qualifying examn. in such subjects:—Aberd., Belf., Birm., Brist., Edin., Glasg., Leeds, Liver., Lond., Manch., St. And., Sheff., Wales, and Nat. Univ. of Ireland.

Certain exemptions from examn. are granted to students of the late Royal Univ., Ireland, and Magee College, Londonderry.

A student who has passed two years in Arts studies at any of the undermentioned Univs. and passed the examns. belonging to that

period is given credit for the first academic year, provided that if the course he has pursued does not include all the subjects of the first year of Dublin Univ. the Sen. Lectr. may require him to qualify by examn. in the omitted subjects :—Adel., All., Bom., Cal., McGill, Madr., Mel., N. Brun., N. Zea., Panj., Syd., Tas., Tor., King's Coll. Windsor. To such students the entrance fee and May half-yearly fee of the first year are remitted.

South African students are granted special concessions, as follows : A student who has passed the Matricn. examn. of the Cape Univ., including Latin and either French, German, Dutch, or Greek, is admitted without further examn., and if a med. student, is excused the Prelim. Med. examn. If he has also obtained credit for attendance for one year in Phys., Chem., Bot., and Zool. at one of the following Colls.—S.A., Vict., Grey, Rhodes, Transvaal—he may on certain conditions reduce his period of study in Dublin by one year. A student who has passed the Cape Interm. examn. may present himself for the Final examn. of the second collegiate year. One who has passed the Cape B.A. examn. is given credit for two collegiate years. In keeping terms students from S.A. are allowed to substitute Dutch for French or Ger. when two langs. are required. Three exhibitions of £50 p.a. tenable for three years are offered annually to S.A. students. Nominations are made by the Univ. Colls. above mentioned and Natal.

The Board and Council are prepared, in the case of students of Medicine, to consider applications from Colonial Univs. and Colls. for recognition of courses of instruction given by them.

No recognition granted under this scheme will exempt a student wishing to take the Dublin degree from spending at least three full years of Med. study in Trin. Coll.

Scholarships open to Graduates. Two studentships of £100 p.a. tenable five years are offered annually for grads. in Arts. Prizes amounting to £450 are awarded annually for grads. who deserve assistance for research or other purposes; the Madden Prize of £300 to the best unsuccessful candidate at the Fellowship examn. A number of other prizes, &c. (including the Helen Blake National Hist., nearly £400), are open to grads. under M.A. standing.

Women Students are, equally with men, admissible to lectures and examns. (except those of the Engin. and Div. Schools), and to the privilege of reading in the Library. A separate Anat. Dept. has been provided for women medical students.

Appointments. There is a Univ. Appointments Assocn. formed under the sanction of the Board of Trin. Coll.

Site and Residential Facilities. The Coll. occupies a large site in the middle of the city, with ample grounds for the athletic clubs, and has residential accommodation for about 270 students. At Trinity Hall (acquired by the Univ. in 1908) there is residential accommodation for about 40 women students. A new Hostel is being

opened by the General Synod of the Church of Ireland for the accommodation of Div. students of that Church. There are also registered lodging-houses. It is compulsory for all students of the Coll. to reside in them if they do not reside in chambers within the Coll., or with their guardians in Dublin.

The LIBRARY OF TRIN. COLL. has enjoyed since 1801 the privilege (shared by the British Museum, Bodleian, Cambridge, and Edinburgh Advocates' Libraries) of receiving a copy of every book published in England. It contains 333,110 volumes and 2077 MSS. (See also Note above, under *Arts*.) A catalogue of MSS. was published by the Librarian in 1900.

ASTRONOMICAL OBSERVATORY OF TRIN. COLL. is at Dunsink, five miles from the Coll. It is the official residence of the Royal Astronomer of Ireland.

MUSEUMS, &c. Formerly equipment for science teaching was inadequate, but now, thanks to the Science Laboratory Fund contributed by the grads. and friends of the Univ. during the years 1903–06 and to Lord Iveagh's generosity (see below), the Coll. has good modern equipment for teaching and for research work.

Museums of Geol. and Mineral. (Curator—Prof. J. Joly, Sc.D., F.R.S.) and Engin. Models (Curator—Prof. T. Alexander, M.A.I.) in Museum building; Zool. and Comp. Anat. (Curator—Prof. H. W. Mackintosh, M.A.), Surg. and Med. Pathology (Director—Prof. E. H. Taylor, M.D.), Materia Medica (Curator—Prof. W. G. Smith, M.D.), and a Chemical Museum in the Medical School buildings. The Museum of Nat. Philos. is accommodated in the new Physical Laboratory.

The Botanic Gardens (Director—Prof. H. H. Dixon, Sc.D., F.R.S.) are about a mile from the Coll. and are about eight acres in extent. The General Herbarium is particularly rich in the plants of N. America, India, S. Africa, and Australia. The new School of Botany was built and equipped at a cost of about £7950 through the munificence of Viscount Iveagh, who also provided £16,500 for the construction and equipment of the Physical Laboratory.

PUBLICATIONS. *Calendar*, Vol. I, pubd. about July, gives information as to Courses in Arts and Professional Schools and *Pass* Arts Examn. Papers. Price 2s.; Vol. II, pubd. soon after Jan. 1, gives results of examns., Degrees conferred, additions to Vol. III, and lists of students, Senate, electors, and College officers; Vol. III, published in 1901, 1906, and 1913, contains lists of past prizemen, &c., Graduates in Honours, officers, and benefactors. *Supplement to the Calendar*, pubd. about middle of Feb., contains Honour Examn. Papers in Arts, Prize and Scholarship Papers, and Papers set in the Professional Schools. Hodges, Figgis, and Co., Ltd., 104 Grafton Street, Dublin; Longmans, Green, and Co., London, New York, and Bombay.

"Book of Trinity College, Dublin, 1591–1891." Price 21s. Hodges, Figgis, and Co.

Hermathena appears at intervals of about a year, edited by Prof. J. I. Beare and devoted chiefly to original papers on Classics, Literature, History, and Archæology.

T.C.D.: A College Miscellany, 1d. weekly in Term; the Students' paper.

THE YEAR 1912–13

Benefactions received during the Past Year. £10,000 for endowing a Research Assistantship in Geology and providing apparatus, &c.; £250 for an addition to the Botanical Lab.; bequest for endowment of a Lecky Chair of History and a bronze bust of the late Mr. Lecky; upwards of £250 for a portrait panel of the late Prof. D. J. Cunningham and endowing a Medal and Prize in Anatomy in his memory; £150 in stock for endowing a Dompierre-Chaufepié Prize for French; £20 p.a. for five years to aid payment for residence of deserving Div. students.

New Posts Created: Palæontology Lectr.; Asst. Registrar to School of Physic.

Number of Students in Arts on the Books, Jan. 1, 1913. Undergrads. 992, Grads. 128. The numbers include such students as only come up to the Univ. for examns. (it is possible to qualify for the B.A. by examn. alone), but these are believed to comprise only about 8 per cent. of the total. No evening classes are held. Research students and grads. working in the Laboratories (excluding members of the staff) are:—Physics, 2; Chemistry, 4; Geology, 2; Botany, 2; Anatomy, 2; total, 12.

Honorary Degrees Conferred. Litt.D.—R. Bagwell, D.L.; A. C. Clarke; L. R. Farnell; Prof. Karl Wiedemann (of Bonn). Sc.D.—Prof. A. C. Seward; Hon. R. J. Strutt. M.Ch.—Sir Robert H. Woods.

Other Degrees (1912). D.D. 2; LL.D. 11 (including 1 woman); M.D. 25; D.Sc. 1; D.Litt. 3 (2 women); B.D. 7; M.A. 76 (9 women); M.A.I. 2; LL.B. 14; M.B., &c., 53 (4 women); B.A.I. 20; B.Sc. 3; B.Dent.Sc. 1; B.A. 230 (37 women); Mus.D. 1; Mus.B. 2; Lic. Dent. Sc. 1.

Additions to Buildings, &c. During the past year Viscount Iveagh (Chancellor of the Univ.) presented to the authorities the sum of £10,000, to be invested—the proceeds to be applied to providing research assistants and equipment for the Dept. of Geology and Mineralogy, which has hitherto been much hampered for want of funds. The *Physiological Dept.* has been improved by the addition of a Chemical and a Research Laboratory.

Other New Developments. A Univ. Co-operative Society has been formed and registered, and is opening a store.

UNIVERSITY OF DURHAM

[Reconstructed under the Univ. of Durham Act (8 Edw. VII. c. 20), 1908, in two divisions: (1) the Durham Division, including the Durham Colls., and (2) the Newcastle Division, consisting of the Coll. of Medicine and Armstrong Coll.]

CHANCELLOR	His Grace the DUKE OF NORTHUMBERLAND, K.G.
VICE-CHANCELLOR	Sir GEORGE H. PHILIPSON, Kt., M.A., M.D., D.C.L.
PRO-VICE-CHANCELLORS	J. S. G. PEMBERTON, M.A., D.C.L.; F. B. JEVONS, M.A., D.Litt.; W. H. HADOW, M.A., D.Mus.
PROCTORS	S. R. P. MOULSDALE, M.A., B.D.; P. P. BEDSON, M.A., D.Sc.
REGISTRAR	H. G. THEODOSIUS, M.A.
TREASURER	F. W. RITSON, M.A.

GENERAL INFORMATION

The Univ. has no teaching staff apart from those of the Durham Colls., the Coll. of Medicine, and Armstrong Coll. The Coll. of Medicine and Armstrong Coll. have respectively full power and authority to regulate their constitution and government, and to provide for the appointment of all their teachers and other officers.

FACULTIES. Arts, Letters, Science, Theology, Law, Medicine, Commerce.

The Faculties of Science and Commerce are seated entirely at Armstrong Coll. Science includes Engin. (Mech., Civ., and Elec.), Mining, Metall., Naval Archit., and Agric. Armstrong Coll. has also Day Training and Fine Arts and Handicrafts Depts.

ADMISSION. In order to be matriculated a student must have passed the prescribed matricn. examn. or its equivalent. Among those recognized as equivalent for admission to Armstrong Coll. are certain examns. of the Univs. of Australia and N.Z. and the S.A. Coll., Cape Town, which qualify also for admission to the Inst.C.E. The Coll. of Med. recognizes the matricn. examns. of Indian Univs. which embrace Latin and either Persian or Sanskrit.

TERMS, 1913–14, begin as follows:
Michs.: Durh., Oct. 17; Med., Oct. 1; Armstrong, Sept. 29.
Epiph.: Durh., Jan. 16; Med., Jan. 6; Armstrong, Jan. 6.
Easter: Durh., April 24; Med., April 17; Armstrong, April 21.

No student is held to have kept any term unless, being duly matriculated, he has complied with certain prescribed conditions. In the Durham Colls. attendance during 40 weekdays is required. The Council and Senate may allow terms kept in another Univ. to be counted. *See also under* Affiliated Colls.

Degrees, &c. Arts: B.A., M.A., B.Litt. (now obsolete), M.Litt., D.Litt., Diploma in Oral French or German.
Science: B.Sc., M.Sc., D.Sc., Associateship in Sc.
Theology: B.A., D.D., Lic. in Theol.
Law: B.C.L., D.C.L.
Medicine: M.B., B.S., M.D., M.S., L.D.S., Diploma in Psychiatry.
Hygiene: B.Hy., D.Hy., Diploma in Pub. Health.
Music: B.Mus., D.Mus.
Education: Diploma in Theory and Practice of Teaching.
Dentistry: Licence in Dent. Surg.

Arts. There are two B.A. degrees, one being the B.A. *in litteris antiquis*. For this 6 terms residence and a course of study in the Durham Div. are required, but Theol. students may count as terms kept in Arts three terms kept as Theol. students. A similar concession is made to students of the Coll. of Med. and Armstrong Coll., and persons who have completed a course of study and examn. qualifying for the Lic. in Theol. at one of the Theol. Colls. mentioned in list C below. Scripture Hist., Greek, and Latin are compulsory subjects. For the other B.A. 9 terms must be kept, *but see* Affiliated Colls. B. Students who are not candidates for Honours must qualify in five subjects, including one ancient and one other lang.

M.A., M.Litt., and D.Litt. Degrees. A B.A. of 9 terms standing who obtained Honours or distinction at the Final B.A. examn., or after passing this examn. has passed that for the Lic. in Theol. or the B.C.L. or M.B. or B.Litt. degree, may be admitted M.A. A B.Litt. of 3 yrs. standing who passed the Final B.Litt. examn. with distinction or in Division I or is also a B.A. may be admitted M.Litt. Other candidates for the M.A. or M.Litt. degrees must pass examns. or perform exercises therefor. The D.Litt. degree may be granted for a sufficient contribution to learning after the B.A. or B.Litt. has been held for 10 yrs.

Science. A 3 yr. course in Armstrong Coll. leads from the matricn. examn. to the Final B.Sc. There are separate courses for students in Pure Sc., Agric., Mech. and Marine Engin., Elec. Engin., Civ. Engin., Naval Archit., Mining and Metall. Exemption from the 1st yr. may be allowed in consideration of a course in this or another Univ. accepted by the Board of the Faculty as equivalent. A B.Sc. of 2 yrs. standing who has satisfied the examiners in any branch of Science may be admitted M.Sc. A M.Sc. of the standing of at least 21 terms from admission as B.Sc. may be admitted D.Sc. for distinction in special research or learning.

THEOLOGY. The B.D. examn. is open to candidates 25 yrs. of age in priest's orders who either have certain specified Univ. qualifications or are clergymen of not less than 7 yrs. standing from deacon's orders. The qualifications for the D.D. degree are similar to those for the D.Litt. except that a candidate must be a B.D. of this Univ. The Lic. in Theol. is open to members of the Church of England only. Six terms residence must be kept unless the candidate is a B.A. or holds a higher degree, but terms kept at one of the Theol. Colls. in list C below may be counted in lieu of residence in Durham, provided the candidate has passed all examns. required by his Coll.

LAW. The B.C.L. may be taken by a B.A. of 12 terms standing who has passed the prescribed examn. He may proceed to the D.C.L. on conditions similar to those for the D.Litt.

MEDICINE. One of the 5 yrs. of medical study required for the M.B. degree must be spent in the Coll. at Newcastle. The B.S. degree cannot be taken until after passing the examn. for the M.B. For admission as M.D. a candidate must have had subsequently to graduation as M.B. 2 yrs. of practice in a hospl. or in the Milit. or Naval service. A candidate for either the M.D. or M.S. must be 24 yrs. of age at least.

M.D. Degree Examn. for Practitioners. A person who has been registered by the Gen. Med. Council of the U.K. and in the active practice of his profession for 15 yrs. as a qualified practitioner and is not less than 40 yrs. of age may obtain the M.D. degree without fulfilling any conditions as to residence on passing an examn. instituted for this purpose by this Univ. and held in March and June. Candidates who have not passed previously to their professional examn. an examn. in Arts are required to pass an examn. in Classics and Maths. Natives of India are admissible if they bring evidence of having passed within the preceding year an examn. in Latin.

HYGIENE. A candidate for the B.Hy. degree must be a grad. in Med. and have spent 1 yr. in professional study at Newcastle. He may be admitted to the D.Hy. examn. after 2 yrs. of Pub. Health administration or research.

DENTISTRY. A candidate for the L.D.S. must have undergone a 3 yrs. pupilage in Mech. Dent. with a registered dentist and been engaged in professional study for 4 yrs. subsequent to registration. Part of the curriculum for the L.D.S. can be taken at the Durham Coll. of Med. The rest can be taken at the Newcastle-upon-Tyne Dent. Hospl.

TRAINING OF TEACHERS. The course for the Univ. Diploma covers 3 yrs. Students may take part of the course while reading for a degree, but in that case a full year must be devoted to educational theory and practice after graduation. Students may be admitted to the Training Coll. for Teachers for Primary Schools for a 3 yrs. or for a 2 yrs. course.

Fine Arts and Handicrafts. The courses correspond to the requirements of the Board of Educn.

Postgraduate Courses are provided for the B.Hy. (*v. supra*) and in Bacteriology.

Publications. *Durh. Univ. Calendar*, pubd. in Oct., price 1s. 6d.; *Durh. Univ. Journal*, three times each term, 6d. (Both by T. Caldcleugh and Son, 45 Sadler St.).

AFFILIATED COLLEGES

A.

Codrington Coll., Barbados, and Fourah Bay Coll., Sierra Leone.

Students of these two Colls. may matriculate, keep terms, and pass examns. therein and so qualify for degrees without coming to England. The degrees taken are B.A., M.A., B.C.L., D.C.L., and the L.Th. (Regns. Title VIII.).

Codrington College. *Trustees*: The S.P.G.; *Visitor*: The Lord Bishop of Barbados; *Principal*: A. H. Anstey, M.A.; *Prof. of Theol.*: J. C. Wippell, M.A., B.D.; *Prof. of Med.*: H. J. Wolseley, M.B.

Fourah Bay College. Founded by the Church Missionary Soc. in 1827 for the purpose of training Africans as schoolmasters, catechists, and clergymen. In 1876 its scope was enlarged, and it was affiliated to Durham. *Visitor*: The Bishop of Sierra Leone; *Principal*: Vacant; *Vice-Principal*: J. Denton, M.A.

B.

Students of 18 yrs. of age who have completed 2 yrs. study and examn. at the following Colls. and passed prescribed examns. of the Univ. may be allowed to count 2 yrs. kept therein as 1 yr. towards the B.A. degree (Regns. Title IV.).

Ladies' Coll., Cheltenham.
Queen's Coll., Harley Street, London.
Women's Training Coll., Darlington.
Women's Training Coll., Ripon.

C.

Students who have completed a course qualifying for the Lic. in Theol. at one of the following Theol. Colls. may count the final Coll. examn. in lieu of the first pub. Univ. examn. and be admitted to the final B.A. (*in litteris antiquis*) after keeping 3 terms as students in Arts at Durham (Regns. Title V, Sec. I):

St. Aidan's; St. Augustine's; Burgh; Chichester; Cumbrae; Dorchester; Edinburgh; Gloucester; Highbury; Islington;

Jamaica ; St. John's, Armidale, N.S.W. ; Lichfield ; Lincoln ; Moore, Sydney ; Queen's, St. John's, Newfoundland ; Salisbury ; Selwyn, Dunedin ; Truro ; Warminster ; Bishop Wilson School, Isle of Man ; Theol. Depts. of King's Coll., Lond., and of Queen's Coll., Birm.

THE YEAR 1912–13

His Grace the Duke of Northumberland was installed as Chancellor on May 3, 1913.

HONORARY DEGREES CONFERRED. *D.D.* : The Right Rev. the Lord Bishop of London (A. F. Winnington Ingram) ; the Very Rev. the Dean of Christ Church, Oxford (T. Banks Strong) ; the Very Rev. the Dean of Durham (H. Hensley Henson). *D.C.L.* : The Right Hon. H. H. Asquith, P.C., M.P. ; the Right Hon. Viscount Haldane of Cloan ; the Right Hon. Earl Curzon ; the Right Hon. Baron Rayleigh ; the Right Hon. Baron Joicey ; Sir William R. Anson, M.P. ; Sir William E. Bigge ; Prof. Paul Vinogradoff, of Ox. ; Sir Frederick D. Lugard, G.C.M.G., C.B., D.S.O., D.C.L. Ox. ; H. B. Wheatley ; Sir William Osler, Bart. *D.Sc.* : Sir Archibald Geikie, K.C.B., P.R.S. ; Sir Joseph J. Thomson, F.R.S. ; Sir William Crookes, F.R.S. ; Sir William Ramsay, K.C.B., F.R.S. ; Sir J. Alfred Ewing, K.C.B., F.R.S. ; Sir T. Clifford Albutt, K.C.B., M.D. ; Prof. E. B. Poulton, F.R.S. ; E. H. Hills, C.M.G., F.R.S. *D.Litt.* : L. T. Hobhouse ; H. Bradley ; C. H. Turner. *M.Sc.* : R. B. Greig.

OTHER DEGREES, &c., CONFERRED. Degrees, 352 (including 38 women) ; Licences, 102 ; Diplomas, 10 (7 women).

It has been decided to admit women to Convocation.

DURHAM DIVISION

President of Council	J. S. G. PEMBERTON, M.A., D.C.L.
Secretary of the Council	A. ROBINSON, M.A., D.C.L.
Master of Univ. Coll.	H. GEE, M.A., D.D.
Principal of Bishop Hatfield's Hall	F. B. JEVONS, M.A., D.Litt.
Principal of St. Chad's Hall	S. R. P. MOULSDALE, M.A., B.D.
Principal of St. John's Hall	D. WALKER, M.A., D.D.
Censor of Unattached Students	V. K. COOPER, M.A.
Principal of Women's Hostel	SYBIL WRAGGE, Som. Coll., Ox.
Censor of Home Students (Women)	EDITH M. ELLERSHAW, M.A.
Prælector	E. G. PACE, M.A., B.D.
Secretary of Examinations	H. ELLERSHAW, M.A.
Treasurer	F. W. RITSON, M.A.
Hon. Director of the Univ. Observatory	Major E. H. HILLS, C.M.G., D.Sc., F.R.S., President of the R.A.S.

PROFESSORS AND LECTURERS OF THE DURHAM COLLEGES

ASTRONOMY
CARPENTER, F. C. H., M.A., B.SC. LOND. Lectr. and Observer.

ECONOMICS
BROWN, P. A., M.A. Lectr.

EDUCATION
WADSWORTH, J. H., M.A. Lectr.

HISTORY (v. also *Theol.—Church H.*)
HENSON, VERY REV. H. HENSLEY, D.D. Hon. Prof.
VACANT Lectr.

LANGUAGES and Literature
English Lang. and Lit.
ELLERSHAW, H., M.A. Prof.
Greek and Class. Lit.
CRUICKSHANK, A. H., M.A. Prof.
Hebrew [Prof.
WATKINS, VEN. H. W., M.A., D.D.
FOWLER, J. T., M.A., D.C.L., F.S.A. Lectr.
Latin
HOW, J. H., M.A. Prof.
Modern Languages
HERDENER, C. F., M.A. Prof.

MATHEMATICS
HEAWOOD, P. J., M.A. Prof.
JONES, D. C., M.A. Lectr.

MILITARY EDUCATION
ROBB, A. K., M.A. Lectr.

MUSIC [Prof.
BRIDGE, J. C., M.A., D.MUS., F.S.A.

PHILOSOPHY [Prof.
JEVONS, F. B., M.A., D.LITT., F.R.E.S.
Logic and Psychology
ROBINSON, A., M.A., D.C.L. Prof.

THEOLOGY
PACE, E. G., M.A., B.D. (Tutorial Fellow) Lectr.
Biblical Exegesis
WALKER, D., M.A., D.D. Prof.
Church Hist.
GEE, H., M.A., D.D., F.S.A. Prof.
Divinity and Eccl. Hist.
KNOWLING, R. J., D.D. Prof.

CHANGES IN STAFF

Henson, Very Rev. H. Hensley, D.D., apptd. Hon. Prof. of Mod. Hist.
Wragge, Sybil, apptd. Principal of Women's Hostel.

GENERAL INFORMATION

POSITION OF WOMEN. Students of the Women's Hostel and Home Students are on the same footing as other students of the Univ.

RESIDENTIAL FACILITIES. Univ. Coll. and the three Halls mentioned above provide accommodation for about 200 men, and the Women's Hostel for 14 women.

The Univ. LIBRARY contains about 37,000 vols.

The MUSEUM has a complete collection of British birds.

OBSERVATORY. Almucantar.

SCHOLARSHIPS, &c., FOR GRADUATES. Three Tutorial Fellowships of £200–£300 and one Ordinary Fellowship are open to Durh. grads.; De Bury, Lightfoot, each £50 for 1 yr. while reading for Honours in Theol., open to Durh. grads. with Honours in Arts; Van Mildert, £50 for 1 yr. while reading Theology, open to Durh. grads. in Arts.

PUBLICATIONS. The *Calendar*, pubd. in Oct., price 1s. 6d.

THE YEAR 1912–13

BENEFACTIONS. Bequest (Lord Ilkeston), £800 for "Winifred Foster" Scholarship for a woman student.

NEW DEPARTMENTS AND POSTS. An Hon. Directorship of the Univ. Obs. and an Hon. Prof'ship of Mod. Hist. have been instituted. An Honours School in Mod. Hist. is being organized.

The Council has made a grant for apparatus for the experimental study of Psychology.

NUMBER OF STUDENTS PREPARING FOR DEGREES. 230 (including 20 women).

NUMBER OF DEGREES OBTAINED. 128.

1913–14

CONFERENCES, &c. Meeting of the Scots Philos. Club and the Northern Univs. Philos. Soc., Dec. 20, 1913. Joint Meeting of the Mind Assocn., Aristot. Soc., and Brit. Psych. Assocn., end of Easter Term 1914.

COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE

[Incorporated under the Companies Acts. Constituted an integral part of the Univ. in 1909.]

Chairman of the Court of Governors	W. J. SANDERSON, J.P.
President of the College and Vice-Chairman of the Court of Governors	Sir GEORGE H. PHILIPSON, Kt., M.A., M.D., D.C.L., LL.D., F.R.C.P. (*Vice-Chancellor of the Univ.*).

Registrar F. PAGE, M.A., M.D., D.C.L., F.R.C.S.

Treasurer C. A. COCHRANE, M.A., J.P.

Secretary R. HOWDEN, M.A., M.B., D.Sc.

PROFESSORS, LECTURERS, ETC.

ANATOMY

HOWDEN, R., M.A., M.B., D.SC. DURH., M.B., C.M. EDIN., F.R.S.E. Prof.

LICKLEY, J. D., M.D. GLAS. Demr.

TELFER, S. V., M.B., CH.B. GLAS. ,,

CLAY, J., M.B., B.S., F.R.C.S. *Surg. Anat.* Lectr.

BACTERIOLOGY, v. *Path. Comp.*

BIOLOGY

POTTER, M. C., M.A. CAMB. AND DURH., SC.D. CAMB., F.L.S. (*Botany*) *Prof.

MEEK, A., M.SC., F.Z.S. (*Zool.*) *Prof.

CHEMISTRY

BEDSON, P. P., M.A. DURH., D.SC. LOND. AND DURH., B.SC. VICT., F.I.C., J.P. *Prof.

DERMATOLOGY, Clinical

PROF. BOLAM (v. *Med. Jurispr.*) Lectr.

HYGIENE, v. *Pub. Health*

LARYNGOLOGY and Otology, Clinical

WHILLIS, S. S., M.D., B.S. Lectr.

WILSON, W. F., M.B., B.S. Asst.

MATERIA MEDICA and Pharmacology

HUME, W. E., M.A., M.D., B.C., M.R.C.P. Prof.

MEDICAL JURISPRUDENCE

BOLAM, R. A., M.D. DURH., M.R.C.P. LOND. Prof.

MEDICINE, Principles and Practice of [Prof.

PHILIPSON, SIR G. H., M.A. CAMB., M.D. CAMB. AND DURH., D.C.L. DURH., LL.D. GLAS., F.R.C.P.

DRUMMOND, D., M.A., M.D. DUB., D.C.L. Prof.

OLIVER, SIR T., M.A. DURH., M.D. GLAS. AND DURH., LL.D. GLAS., D.SC. SHEF., F.R.C.P. LOND., F.R.S.E. Prof.

Clinical Medicine

PROF. BEATTIE (v. *Therap.*) Lectr.

PROF. HUME (v. *Mat. Med.*) ,,

DRUMMOND, H., M.D., B.S. ,,

PARKIN, A., M.D., M.R.C.P., F.R.C.S. Lectr.

HALL, G., M.D., B.SC., M.R.C.P. ,,

ALLISON, T. M., M.D., B.S. ,,

PATTERSON, D. W., M.B., B.S. ,,

HUNTER, T. C., M.D., B.S. ,,

MIDWIFERY and Dis. of Women and Children

LYLE, R. P. R., M.A., M.D. DUB. AND DURH., B.CH., B.A.O. DUB., L.R.C.P.I. Prof.

OPHTHALMOLOGY [Prof.

WARDALE, J. D., M.A., M.B., B.S.

GOWANS, T., M.B., CH.B. Asst.

PATHOLOGY and Clin. Path.

MC DONALD, S., M.A. DURH., M.D., F.R.C.P. EDIN. Prof.

SEWELL, W. T., M.D., B.S., D.P.H. Lectr.

Pathology, Comp., and Bacteriology

HUTCHENS, H. J., D.S.O., M.A.

* Prof. in Armstrong Coll. also.

DURH., M.R.C.S., L.R.C.P., D.P.H. OX. Heath Prof.
LAWS, P. C. W., M.A. OX., L.S.A. Lectr.
TULLOCH, W. J., M.B., CH.B. ST. AND. Demr.
HALL, G., M.D. LOND., B.SC. DURH., M.R.C.P. Demr.

Pathology, Medical

PROF. HUME (v. *Mat. Med.*) Demr.

Pathology, Surgical [Demr.

WILLAN, R. J., M.B., B.S., F.R.C.S.

PHYSICS

STROUD, H., M.A. CAMB. AND DURH., D.SC. LOND. AND DURH., F.PH.S.L. *Prof.

PHYSIOLOGY

BAINBRIDGE, F. A., M.A. CAMB. AND DURH., M.D. CAMB., D.SC. LOND., F.R.C.P. Prof.
MENZIES, J. A., M.D. EDIN. Lectr

PSYCHOLOGICAL MEDICINE

MC DOWALL, T. W., M.A. DURH., M.D. EDIN. AND DURH. Prof.

PUBLIC HEALTH [Prof.

HILL, T. E., M.B., C.M., B.SC. EDIN.

SURGERY

MORISON, J. R., M.A. DURH., M.D. EDIN., F.R.C.S. (Lectr. in Clin. S.) Prof.
ANGUS, H. B., M.B., M.S. DURH., F.R.C.S. (Lectr. in Clin. S.) Prof.

Clinical Surgery

MARTIN, A. M., M.B., B.S. Lectr.
RUTHERFORD, J. V. W., M.B., C.M., M.R.C.S. Lectr.
RICHARDSON, W. G., M.B., B.S., F.R.C.S. Lectr.
LEECH, J. W., M.D., M.S., F.R.C.S. EDIN. Lectr.
CLAY, J. (v. *Surg. Anat.*) ,,
TURNER, G. C., M.B., M.S., F.R.C.S. Lectr.

THERAPEUTICS

BEATTIE, T., M.D. DURH., M.R.C.P. LOND. Prof.

Electrotherapy

ARNISON, W. D., M.D., B.S., M.R.C.S., L.R.C.P. Lectr.

GENERAL INFORMATION

Students receive instruction in Chem., Phys., and Biol. at Armstrong Coll.; in Clin. Med. and Surg. in the Roy. Vict. Infirmary (over 400 beds); in Pract. Midw. in the Maternity Hospl. (18 beds, over 1000 cases attended annually in hospl. and outdoor maternity connected with it); in Fevers at the City Hospl. for Infec. Dis. (172 beds); in Dentistry at the Newcastle-upon-Tyne Dent. Hospl.; and in Psych. Med. at the Northumb. County Asylum.

The LIBRARY at the Roy. Vict. Infirmary contains about 6000 vols. Students can obtain access to the Armstrong Coll. (*q.v.*) and Lit. and Philos. Soc.'s Libraries.

There are MUSEUMS of Path., Anat., Mat. Med., and Hygiene at the Coll. of Med., and of Geol. and Nat. Hist. at Armstrong Coll.

POSITION OF WOMEN. The degrees are open to women.

RESIDENTIAL FACILITIES. A list of suitable lodgings is kept by the Secretary.

* Prof. in Armstrong Coll. also.

SCHOLARSHIPS FOR GRADUATES. Luke Armstrong Memorial, about £25, open to grads. in Med. or Hygiene who have spent 6 mos. at this Univ.; Stephen Scott, about £40, open to a grad. of Durh. or any student of the Coll.; Heath, £200 (for an essay), open to Durh. grads.

PUBLICATIONS. *Calendar*, issued in Aug. (free).

THE YEAR 1912–13

NUMBER OF STUDENTS. About 200 (including 16 women).

NUMBER OF DEGREES OBTAINED by men and women, 84.

ARMSTRONG COLLEGE, NEWCASTLE-UPON-TYNE

[An Incorporated Society registered under the Companies Acts.]

President of the Board of Governors and of the Council	Rt. Hon. EARL GREY, P.C., G.C.B., G.C.M.G., D.C.L., LL.D.
Chairman of Council	Sir HUGH BELL, D.C.L., LL.D., J.P.
Principal	W. H. HADOW, M.A., D.Mus.
Secretary	F. H. PRUEN, M.A.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING
SISSON, H. A., M.A. Lectr.

AGRICULTURE and Rural Econ. (v. also *Forestry*)
GILCHRIST, D. A., M.SC., F.H.A.S., F.R.S.E. Prof.
WALKER, F. P., B.SC. Adviser and Lectr.
THOMPSON, L. A., B.SC. Asst.
MACEWEN, I. P., B.SC. Asst.
SCHOFIELD, T. B. Live Stock Officer for Northern Agric. Province.
LITTLE, W. B. (*Horticulture*) Instr.

Agricultural Botany
ANDERSON, T., M.A., B.SC. Lectr.

Agricultural and Forest Botany
MERCER, W. B., B.SC. Asst. Lectr.

Agricultural Chemistry
COLLINS, S. H., M.SC. Adviser and Lectr.
ROBERTSON, G. S., B.SC. Asst.

Agricultural Zoology
GRAY, R. A. H., M.A., M.SC. Lectr.

ART [Director of the School.
HATTON, R. G., A.R.C.A. LOND. (Seven Assistants)

BANKING
MOSELY, H. Lectr.

BIOLOGY, v. *Bot.*, *Nat. Hist.*, *Zool.*

BOTANY (v. also *Agric. Bot.*)
POTTER, M. C., M.A., F.L.S., SC.D. CAMB. *Prof.
MANGHAM, S., M.A. Lectr.
WHITEHEAD, T., A.R.C.SC. Demr.

CHEMISTRY (v. also *Agric.*, *Metall.*)
BEDSON, P. P., M.A., D.SC. †Prof.
GARRETT, F. C., D.SC. Lectr.
SMYTHE, J. A., D.SC., PH.D. ,,
HALL, A. A., M.SC., PH.D. Asst. Lectr. and Demr.
FORSTER, A., M.SC., PH.D. Demr.
BLATCHFORD, A. S., B.SC. Prize Demr.
WARDLAW, W. Prize Demr.

CLASSICS and Ancient History
DUFF, J. W., M.A., D.LITT. Prof.
COOKE, H. P., M.A. Lectr.
THOMPSON, M. S., M.A. Lectr.

ECONOMICS (v. also *Banking*, *Geog.*) [D. Dale Prof.
HALLSWORTH, H. M., M.A., B.SC.
Economics, Comml. and Industr.
RAMSBOTTOM, J. W., M.A. G. B. Hunter Lectr.

EDUCATION
WRIGHT, M. R., M.A. Prof.
MELVILLE, E. L., M.A. Mistress of Method.
THOMSON, G. H., D.SC., PH.D. Master of Method.
BUCKLEY, BEATRICE M., B.LITT. Asst. Lectr.
THOMPSON, J. R., M.SC. ,,
HAWTHORN, C. MARY, B.SC. ,,
BROWN, V. ,,

ENGINEERING (v. also *Min.*, *Nav. Arch.*)
WEIGHTON, R. L., M.A., D.SC. Prof.
MORROW, J., M.SC., D.ENG. Lectr.
EDEN, E. M., M.SC., A.M.I.C.E. ,,
HALL, J., A.M.I.E.E. Demr.
DIXON, J. T. Demr.

Engineering, Electrical [Prof.
THORNTON, W. M., D.SC., D.ENG.
FIRTH, W. W., M.SC. Lectr.

FORESTRY (v. also *Agric.*)
ANNAND, J. F., M.SC. Adviser and Lectr.
MC LAREN, J. Asst. Lectr.

GEOGRAPHY, Economic
WILSON, R., M.A., B.SC. Lectr.

GEOLOGY
LEBOUR, G. A. L., M.A., D.SC., F.G.S. J. B. Simpson Prof.
WOOLACOTT, D., D.SC. Lectr.
HAWKES, L., B.SC. Prize Demr.
Crystallography and Mineralogy
FLETCHER, M., M.A., F.G.S., F.MIN.S.L. Lectr.

HISTORY, Modern
VICKERS, K. H., M.A. Prof.
BRADSHAW, F., M.A., D.SC. Lectr.
History, Ancient, v. *Classics*

LANGUAGE and Literature, English
MAWER, A., M.A. J. Cowen Prof.
WRAGGE, SYBIL, B.A. Engl. Lit. Lectr.
Languages, Modern
LATHAM, A. G., M.A. Prof.
BELGER, H., M.A., B. ÈS LETT. PARIS Lectr.
MAC GREGOR, LILIAS, M.A., DOC. DE L'U. GREN. Lectr.

MATHEMATICS
JESSOP, C. M., M.A. Prof.
CAUNT, G. W., M.A., M.SC. Lectr.
RU LE, J., B.SC. Ast. Lectr.
Mathematics, Applied, and Math. Physics
HAVELOCK, T. H., M.A., D.SC. Lectr.
RULE, J., B.SC. Asst. Lectr.

METALLURGY
PROF. LOUIS (v. *Mining*) W. Cochrane Lectr.

* Prof. of Biol. in the Coll. of Med.
† Prof. in the Coll. of Med. also.

THE LECTR. AND DEMR. in *Mining and Surveying* Demrs.

MINING and Surveying

LOUIS, H., M.A., D.SC., F.I.C., F.G.S., F.MIN.S.L. Prof.

DEAN, H., M.SC., A.R.S.M. Lectr.

KENT, G. H. S. Prize Demr.

MUSIC [Instr.

WHITTAKER, W. G., B.MUS., F.R.C.O.

NATURAL HISTORY

BRADY, G. S., M.D., LL.D., D.SC., F.R.S. Hon. Prof.

NAVAL ARCHITECTURE

WELCH, J. J., M.SC., M.I.C.E., M.I.N.A. Prof.

ALEXANDER, F. H., M.SC., M.I.N.A. Lectr.

PHILOSOPHY, Mental and Moral [Prof.

HOERNLÉ, R F. A., M.A., B.SC.

PHYSICS [†Prof.

STROUD, H., M.A., D.SC., F.PH.S.L.

MORRIS-AIREY, H., M.SC. Lectr.

BULLERWELL, J. W., M.SC. Lectr.

SIMONS, L., B.SC. Demr.

POULTON, J. H., B.SC. Prize Demr.

ZOOLOGY (v. also *Agric.*)

MEEK, A., M.SC., F.Z.S. †Prof.

PEACOCK, A. D., B.SC. Lectr. and Demr.

BENTHAM, T., B.SC. Demr.

CHANGES IN STAFF

ANDERSON, T., apptd. Lectr. in Agric. Bot.
ANNAND, J. F., Lectr. in Forestry, apptd. Adviser.
BROWN, V., apptd. Asst. Lectr. in Day Training Dept.
COLLINS, S. H., Lectr. in Agric. Chem., apptd. Adviser.
DEAN, A. E., M.A., M.Litt., Asst. Lectr. in Day Training Dept., apptd. Prof. of Educn. in Univ. Coll., Exeter.
GRAY, R. A. H., Lectr. in Agric. Zool., apptd. Adviser.
HALLSWORTH, H. M., Lectr. in Econ., elected "D. Dale" Prof. of Econ.
HAVELOCK, T. H., Lectr. in Applied Maths., placed in charge of new independent Lectureship in Applied Maths., &c.
HEARNSHAW, F. J. C., M.A., LL.D., Prof. of Mod. Hist., apptd. Prof. of Mediæval Hist. in King's Coll., Lond.
MCLAREN, J., apptd. Asst. Lectr. in Forestry.
MERCER, W. B., B.Sc., apptd. Asst. Lectr. in Agric. and For. Bot.
MOSELY, H., apptd. Lectr. in Banking.
NEWBOLD, P., B.A., Lectr. in Classics, resigned.
PEACOCK, A. D., apptd. Lectr. and Demr. in Zool.
RAMSBOTTOM, J. W., apptd. *vice* Hallsworth.
REID, J. M. W., apptd. Master of Sculpture in the School of Art.
RULE, J., apptd. Asst. Lectr. in Applied Maths.
SCHOFIELD, T. B., apptd. Live Stock Officer for Northern Province.
SISSON, H. A., apptd. Lectr. in Accounting.
THOMPSON, J. R., promoted *vice* Dean.
THOMPSON, M. S., apptd. *vice* Newbold.
VICKERS, K. H., apptd. *vice* Hearnshaw.
WALKER, F. P., Lectr. in Agric., apptd. Adviser.
WILSON, R., apptd. Lectr. in Econ. Geog.

GENERAL INFORMATION

The Coll. was at first intended for the Faculty of Science in the Univ., and its original title was Durham Univ. Coll. of Phys. Science. In 1904 its name was changed, and in 1909 it was reconstituted as an integral part of the Univ., given full representation on the new Senate, and admitted to Univ. degrees in Arts as well as in Letters and Science. A Faculty of Commerce is now being instituted. There are, among others, Art, Naval Archit., Agric., Commercial Educn., Marine Lab., House, Finance and Buildings, Building, Endowment Fund, and Teachers' Training Dept. Committees of the Council.

The Agric. Dept. directs the Northumb. County Agric. Exper. Station at Cockle Park and the Durham County Station for Dairy Research at Offerton Hall.

Full courses leading to the Science degrees, to the B.A., M.A., M.Litt., and D.Litt., to the B.Com. and M.Com., and to the Univ. Diploma in Educn. are provided.

College diplomas in Engin., Naval Archit., Mining and Mine Surveying, Agric., and Commerce are open to students unable to take a complete degree course.

Scholarships for Graduates. Pemberton Fellowship, £120, tenable in Durh. or Newcastle for 3 yrs., open to grads. of Science in the Univ. being members of the Church of England; Research Fellowship, £125, tenable 2 or 3 yrs., and two research studentships, £62 10s. each, tenable 1 yr., open to Durh. grads. from Armstrong Coll.; Daglish Fellowship, £120, for 1 yr., renewable, for travel in foreign mining districts, open to any mining student.

Residential Facilities. There is at present no hostel. A list of lodgings recommended by the Coll. is kept.

The Library contains about 16,400 vols. Students can obtain access to the Library of the Lit. and Philos. Soc., containing about 50,000 vols., and to that of the North of England Inst.M.M.E. A scheme of co-ordination in the learned periodicals accessible to students has been arranged with the Public Library of the City.

Museums. The Nat. Hist. Soc. permit students to use the Hancock Museum.

Laboratories. There is a lab. of Marine Biol. at Cullercoats on the Northumb. coast.

For *Forestry* instruction the Coll. is in possession of 900 acres of wood at Chopwell.

The *Agric.* and *Dairy* research stations have already been mentioned.

University Extension. Evening classes are held in some 27 different subjects, including Carriage Building, Colliery Engin., and

Wireless Telegraphy. Special Saturday classes in Art, Biol., Maths., and Physics are held. A special course is provided for miners, covering three winter sessions, each session involving attendance for about 24 Saturday afternoons. County Council scholars and working miners, mechanics, and others are admitted at reduced fees. A somewhat similar course is provided for Colliery Engineers, in collaboration with the North of England Inst.M.M.E. The Coll. co-operates with the Workers' Educational Assocn.

PUBLICATIONS. The *Calendar*, issued about Sept., price 1s.

Principal's Annual Report and Reports by Heads of Depts., issued in Oct.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. £12,155 subscribed to the Memorial Fund for the David Dale Chair of Econ.; £5000 from a private donor and £5000 from the Board of Agric. for new Agric. building; £2500 for equipment of Engin. lab.; £2000 for purchase of Diesel engine; miscellaneous bequests and gifts amounting to about £6000. A subscription list headed with two donations amounting to £6000 has been opened towards establishing a Faculty of Commerce.

NUMBER OF FULL-TIME STUDENTS preparing for the Bachelorship, 409; for the Diploma, 26; occasional students, 228; evening students, 816; preparing for the Master's degree, 12; for the Doctor's degree, 2; engaged in Research at Armstrong Coll., 17.

NEW BUILDINGS, &c. New Agric. building and new Hydraulic Lab. *See also* Benefactions *above*.

Negotiations are being conducted for the foundation at Newcastle (for students of Armstrong Coll. and the Coll. of Med.) of a branch of the Durh. Students' Union.

A general Examining Board in Fine Art has been formed.

UNIVERSITY OF EDINBURGH

CHANCELLOR	Rt. Hon. A. J. BALFOUR, M.P., D.C.L., LL.D.
VICE-CHANCELLOR AND PRINCIPAL	Sir WILLIAM TURNER, K.C.B., K.B.O. pour le Mérite, D.C.L., LL.D., D.Sc., M.B., &c.
RECTOR	Rt. Hon. the EARL OF MINTO, K.G., G.C.M.G., G.C.S.I., G.C.I.E., LL.D., &c.
REPRESENTATIVE IN PARLIAMENT	Sir ROBERT B. FINLAY,, M.D., LL.D.
SECRETARY OF THE SENATUS ACADEMICUS	Prof. Sir LUDOVIC J. GRANT, Bart., B.A., LL.D.
ADVISERS OF STUDENTS	
IN ARTS	D. P. HEATLEY.
,,	J. MILL, M.A.
IN ARTS AND SCIENCE	C. G. KNOTT, M.A., D.Sc.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE and Rural Economy

WALLACE, R. — Prof.

Agric. and Forest Entomology

MACDOUGALL, R. S., M.A., D.SC. — Lectr.

Agriculture (v. also *Forestry*)

WATSON, J. A. S., B.SC. — Lectr.

ANATOMY

ROBINSON, A., M.D. — Prof.
JAMIESON, E. B., M.D. — Lectr.&Asst.
JOHNSTON, T. B., M.B. — ,,
BEESLY, L., F.R.C.S.E. — Asst.
CHISHOLM, A. E., M.B. — ,,
DICKIE, J. K. M., M.B. — ,,
JARDINE, F. E., M.B. — ,,
BOLTON, S., M.B., CH.B. — ,,
RADFORD, A., M.B., CH.B. — ,,
MACKENZIE, F. W., M.B., CH.B. — ,,
WOOD, W. Q., M.B., CH.B. — ,,
BURNHAM, C., M.B., CH.B. — ,,

Applied Anatomy

STILES, H. J., M.B., C.M. — Lectr.

Comparative Anatomy

BRADLEY, O. C., M.D., D.SC. — Lectr.

Morbid Anatomy

SHENNAN, T., M.D. — Lectr.

ANTHROPOLOGY and Prehistoric Archæology

HOGARTH, D. G., M.A. — Munro Lectr.

ART (*Fine Art*)

BROWN, G. BALDWIN, M.A. — Prof.

ASTRONOMY

SAMPSON, R. A., M.A., D.SC. — Prof.

BANKING

M'NEIL, A. — C. Bruce Lectr.

BIOLOGY, v. *Bot.*, *Nat. Hist.*, *Zool.*

BOTANY [Prof.
BALFOUR, I. B., M.H., D.SC., F.R.S.
DAVIE, R. C., M.A., B.SC. Lectr.
Mycology & Bacteriology [Lectr.
WILSON, M., D.SC. (Asst. in Bot.)
Plant Physiology
SMITH, E. HOLMES, B.SC. (Asst. in Bot.) Lectr.

CHEMISTRY
WALKER, J., D.SC. Prof.
DOBBIN, L., PH.D. Lect. & Asst.
CUMMING, A. C., D.SC. ,,
TAYLOR, W. W., M.A., D.SC. ,,
MACKENZIE, J. E., PH.D., D.SC. ,,
LONGSTAFF, J. P., D.SC. Asst.
CAMERON, A., M.A., B.SC. Asst.
KAY, S. A., D.SC. Asst.
JACKSON, C. G., B.SC. Asst.
RAWLING, F., M.SC. Asst.
GIBSON, G. E., B.SC., PH.D. Asst.
MURRAY, W. Technical Asst.

COMMERCIAL and Political Econ. and Merc. Law
NICHOLSON, J. S., M.A., D.SC. Prof.
Economic History
REES, J. F., M.A. Lectr.
Political Economy
GUILD, J. B., M.A. Lectr. and Asst.
MYLES, W. H., M.A. Asst.
Statistics and Math. Economics
CARSE, G. A., M.A., D.SC. Lectr.
(v. also *Banking*)

DIVINITY
PATERSON, W. P., D.D. Prof.
M'EWEN, B., M.A., B.D., D.PHIL. Gunning Lectr.
Apologetics [Lectr.
FISHER, R. H., D.D. (Asst. in *Div.*)
Bibl. Crit. and Bibl. Antiq.
PATRICK, J., D.D. Prof.
Eccl. History [Prof.
MACKINNON, J., M.A., PH.D., D.D.
Natural Theology
BERGSON, PROF. H. Gifford Lectr.

EDUCATION, Theory, &c., of
DARROCH, A., M.A. Prof.
DREVER, J., M.A., B.SC. Asst.

ENGINEERING [Prof.
BEARE, T. H., B.A., B.SC., M.I.C.E.
GULLIVER, G. H., B.SC., A.M.I.M.E. Lectr. and Asst.
TODD, J. B., B.SC. Asst.
GRAY, J. Asst.
Drawing and Structural Design
KERR, W. H., M.A., B.SC. (Asst. in *E.*) Lectr.

FORESTRY (v. also *Agric.*)
STEBBING, E. P., F.L.S., F.G.S. Lectr.
PIKE, J. L., B.SC. Asst.
Forest Botany
BORTHWICK, A. W., D.SC. Lectr.

GEOGRAPHY
CHISHOLM, G. G., M.A., B.SC. Lectr.
LENNIE, ALICE B., M.A., B.SC. Asst.

GEOLOGY
GEIKIE, J., D.C.L., LL.D., F.R.S. Prof.
THE LECTURERS Assts.
Petrology
CAMPBELL, R., M.A., D.SC. Lectr.
Palæontology
VACANT Lectr.

HISTOLOGY
PRINGLE, H., M.B. (Asst. in Physiol.) Lectr.

HISTORY
LODGE, R., M.A., LL.D. Prof.
HEATLEY, D. P. Asst. and Lectr.
EWING, J., M.A. Asst.
MELVILLE, E. W. M. B. Asst.
Ancient (Greek & Rom.) Hist.
GILES, A. F., M.A. Lectr.
Ancient Hist. and Palæog.
BROWN, P. H., M.A., LL.D. Prof.
Colonial and Ind. Hist.
MUNRO, J., M.A. Lectr.
Const. Law and Const. Hist.
MILLAR, J. H., B.A., LL.B. Prof.

Eccl. Hist., v. *Div.*
Econ. Hist., v. *Comml. and Pol. Econ.*
Scottish Hist.
MEIKLE, H. W., M.A., D.LITT. (Tutor in Hist.) Lectr.

HYGIENE, v. *Pub. Health*

LANGUAGES and Literature
Arabic [Lectr.
ROBERTSON, E., M.A., B.D., D.LITT.
Celtic Languages, &c.
MACKINNON, D., M.A. Prof.
French and Rom. Philol. [Lectr.
SAROLEA, C., K.O.L., PH.D., D.LITT.
RITCHIE, R. L. G., M.A., D.LITT. PARIS Lectr.
French
M'WILLIAM, NANNIE, M.A. Asst.
German and Teutonic Philol.
SCHLAPP, O., PH.D. Lectr.
EGGELING, H. F., M.A. Lectr.
German
ANDERSON, AGNES L., M.A. Asst.
Greek
MAIR, A. W., M.A., D.LITT. Prof.
TILLYARD, H. J. W., M.A. Lectr. and Asst.
Hebrew and Semitic Languages
KENNEDY, A. R. S., B.D., D.D. Prof.
TRITTON, A. S., M.A. Asst.
Latin [*Humanity.*
HARDIE, W. R., M.A., LL.D. Prof. of
DOUGLAS, W. C., M.A. Asst.
NICHOLSON, CATHERINE, M.A. Asst.
MILL, J., M.A. Lectr. and Asst.
Rhetoric and Engl. Lit. [Prof.
SAINTSBURY, G., M.A., LL.D., D.LITT.
WEBSTER, A. B., M.A. Lectr. & Asst.
KITCHIN, G., M.A., B.LITT. ,,
Sanskrit and Comp. Philol.
EGGELING, J., PH.D. Prof.

LAW
Administrative
WOOD, P. F., M.A., LL.B. Lectr.
Civil
MACKINTOSH, J., B.A., LL.D. Prof.
DYKES, D. O., M.A., LL.B. Asst.
Constitutional, v. *History*
Conveyancing
MOUNSEY, J. L., W.S. Prof.
GRANT, J. A. Asst.
English
MURDOCH, H. B., B.A., LL.B. Lectr.
Evidence and Procedure
LEWIS, W. J., B.L., S.S.C. Lectr.
Internat. (Priv.), and Landlord and Tenant
HOWDEN, C. R. A., M.A. Lectr.
Mercantile (v. also *Comml. and P.E.*)
AITKEN, H., K.C. Lectr.
Public
SIR LUDOVIC J. GRANT, BART., B.A., LL.D. Prof.
Scots
RANKINE, J., K.C., LL.D. Prof.
HOWDEN, C. R. A., M.A. Asst.

MATHEMATICS [Prof.
WHITTAKER, E. T., M.A., SC.D., F.R.S.
TWEEDIE, C., M.A., B.SC. Lectr. and Asst.
URQUHART, J., M.A., B.A. CAMB. ,,
GIBB, D., M.A., B.SC. ,,
HORSBURGH, E. M., M.A., B.SC., A.M.I.C.E. Lectr.
Applied Mathematics
KNOTT, C. G., M.A., D.SC. Lectr.

MEDICINE and Surgery
Bacteriology (v. also *Path.*)
RITCHIE, J., M.A., M.D. Robert Irvine Prof.
Diseases of Children
THOMSON, J., M.D., AND STAFF OF HOSPL. FOR CHILDREN Clin. Lectrs.
Diseases of the Eye
SYM, W. G., M.D. Lectr.
Diseases, Mental
ROBERTSON, G. M., M.D. Lectr.

Diseases of the Skin
WALKER, N., M.D. Clin. Lectr.
GARDINER, F., M.D. ,,

Diseases of Tropics [Lectr.
MARSHALL, MAJOR D. G., M.B., I.M.S.

Entom., Med., and Protozool.
ASHWORTH, J. H. (v. *Zool.*) Lectr.

Forensic Medicine [Prof.
LITTLEJOHN, H., M.A., M.B., B.SC.
SMITH, S. A., M.B., CH.B. Asst.

Gynæcol., System. and Clin.
BARBOUR, A. H. F., M.A., M.D., LL.D. Lectr.
CAIRNS, F. D. Clin. Tutor.

Infective Fevers
JAMES, A., M.D. Lectr.
KER, C. B., M.D. Lectr.

Laryng., Ot., and Rhinology
TURNER, A. L., M.D. Lectr.
GARDINER, W. T., M.B., CH.B. Asst.

Materia Medica [Prof.
FRASER, SIR THOMAS R., M.D., LL.D.
GUNN, J. W. C., M.B., CH.B. Asst.

Medicine
WYLLIE, J., M.D. Prof.
CATTANACH, J. G., M.B., C.M. Asst.

Medicine, Clinical
FRASER, SIR THOMAS R., M.D. Prof.
WYLLIE, J., M.D. Prof.
RUSSELL, W., M.D. M. Arnott Prof.
PHILIP, SIR R. W., M.D. Senr. Lectr.
GULLAND, G. L., M.D. ,,
BROWN, J. J. GRAHAM, M.D. ,,
(Lectr. in *Neurology*)
MATHEWSON, G. D., M.D., B.SC. Asst.
M'NEIL, C., M.D. Asst.
THATCHER, L. H. F., M.B. Asst.

Medicine, History of
COMRIE, J. D., M.D. Lectr.

Midwifery
CROOM, SIR J. HALLIDAY, M.D. Prof.
JOHNSTONE, R. W., M.D. Asst.

Neurology
BROWN, J. J. GRAHAM, M.D. Lectr.

Pathology
SMITH, J. LORRAIN, M.A., M.D. Prof.
LYON, D. M., M.B. Asst.
BULLOCK, W. E., M.D., CH.B. Asst.

Path. and Bact. Methods
MUIR, R. (Asst. in *P.*) Demr.

Path. Bacteriology
DICKSON, W. E. C., M.D., CH.B., B.SC. (Asst. in *P.*) Lectr.

Path., Practical
DRENNAN, A. M., M.B. (Asst. in *P.*) Lectr.

Pharmacol., Exper.
SILLAR, W. C., M.D., B.SC. (Asst. in *Mat. Med.*) Lectr.

Physical Methods
RAINY, H., M.A., M.D. Lectr.

Surgery
THOMSON, A., M.D. Prof.
GRAHAM, J. M., M.D. Asst.
WATSON, A. P., M.A., M.B., CH.M. (Surg. and Clin. Surg.) Asst.
ALEXANDER, R. C., M.A., M.B. Asst.

Surgery, Clinical (v. also *Anat. Morbid*)
CAIRD, F. M., M.B. Prof.
THOMSON, PROF. A. Lectr.
CATHCART, C. W., M.B., C.M. Senr. Lectr.
HODSDON, J. W. B., M.B., C.M. ,,
WALLACE, D., M.B., C.M. ,,
MILES, A., M.D. ,,
LANGWILL, J., M.D. Asst.

MILITARY SUBJECTS
JOHNSTONE, CAPT. H. M., R.E. (retd.) Lectr.

MUSIC
NIECKS, F., MUS.D. Reid Prof.
SHIRLAW, M., MUS.D. Asst.

NATURAL HISTORY (v. also *Bot.* and *Zool.*)
EWART, J. C., M.D., F.R.S. Prof.

PHILOLOGY, v. *Languages*

PHILOSOPHY, MORAL
SETH, J., M.A. Prof.
BARKER, H., M.A. Lectr. and Asst.
LUCK, H., M.A. Asst.

Logic and Metaphysics
PATTISON, A. S. P., M.A., LL.D. Prof.

HARDIE, R. P., M.A. Lectr. & Asst.
HALLETT, H. F., M.A. Asst.
Psychology
SMITH, W. G., M.A., PH.D. Lectr.
NICHOLSON, W., M.A. Asst.

PHILOSOPHY, NATURAL
BARKLA, C. G., M.A., D.SC., F.R.S. Prof.
CARSE, G. A., M.A., D.SC. Lectr. & Asst.
MILNE, J. R., D.SC. Lectr. & Asst.
JARDINE, W., M.A. Nichol Asst.
BELL, H., M.A., B.SC. Asst.
MACKIE, J., M.A., B.SC. Asst.
LINDSAY, T. (Mechanical) Asst.

PHYSIOLOGY
SCHÄFER, SIR E. A., F.R.S. Prof.
LECTRS. IN HISTOL. AND IN PHYSIOL. Assts.
HORNE, R. J. M., M.A., B.SC. Asst.
Chemical Physiol.
CRAMER, W., PH.D., D.SC. Lectr.
Exper. Physiol.
TAIT, J., D.SC., M.D. Lectr.
Physiol. of Nervous System
BRUCE, A. N., M.D., D.SC. Lectr.

PUBLIC HEALTH [Prof.
STEWART, C. H., M.B., C.M., D.SC.
YOUNG, J. B., M.B., D.SC. Asst.

RHETORIC, v. *Languages*

THEOLOGY, v. *Divinity*

ZOOLOGY [Assts.
THE LECTRS. IN COMP. EMBRYOL., GENETICS AND INVERT. Z.
Comparative Anatomy
BRADLEY, O. C., M.D., D.SC. Lectr.
Comparative Embryology, &c.
BEARD, J., D.SC. Lectr.
Entomology, v. *Agric.* and *Med. Entom.*
Genetics
DARBISHIRE, A. D., M.A. (Asst. in *Zool.*) Lectr.
Invertebrate Zool.
ASHWORTH, J. H., D.SC. Lectr.

CHANGES IN STAFF

Barkla, C. G., apptd. *vice* MacGregor.
Bergson, Prof. H., apptd. Gifford Lectr. in Nat. Theol. 1913–15.
Brown, J. J. G., apptd. Senior Lectr. in Clin. Med.
Bruce, A. N., apptd. Lectr. in Physiol. of the Nervous System.
Cathcart, C. W., apptd. Senior Lectr. in Clin. Surg.
Davie, R. C., apptd. Lectr. in Botany.
Fisher, R. H., apptd. Lectr. in Christ. Apologetics.
Gardiner, F., apptd. Lectr. in Diseases of the Skin.
Greenfield, Prof. of Pathol., retired.
Gulland, G. L., apptd. Senior Lectr. in Clin. Med.
Hogarth, D. G., Magd. Coll., Ox., apptd. Munro Lectr. in Anthrop. and Prehist. Archæol. 1914.
MacGregor, J. G., Prof. of Nat. Philos., deceased.
M'Ewen, B., apptd. Lectr. in Div.
Miles, A., apptd. Lectr. in Clin. Surg.
Milne, J. R., apptd. Lectr. in Phys. Optics.*
Philip, Sir R. W., apptd. Senior Lectr. in Clin. Med.
Rainy, H., apptd. Lectr. on Phys. Methods in the Treatment of Dis.*

* New apptmt.

Rees, J. F., apptd. Lectr. in Econ. Hist.
Ritchie, J., Supt. of the Lab. of the R.C.S. Edin., apptd. Robert Irvine Prof. of Bact.*
Robertson, E., apptd. Lectr. in Arabic.
Shennan, T., apptd. Lectr. in Anat. Morb.
Smith, E. H., apptd. Lectr. in Plant Physiol.
Smith, J. L., apptd. *vice* Greenfield.
Sym, W. G., apptd. Lectr. in Dis. of the Eye.

GENERAL INFORMATION (*v. also* Appendix IV)

FACULTIES. Arts, Science, Divinity, Law, Medicine, Music. This Univ. is known especially as a centre of Medical Education.

MATRICULATION is effected by signing in a register, paying a fee, and enrolling in a class. For admission to the courses for graduation it is generally necessary to pass a Prelim. examn. or obtain exemption (*see* Appendix IV).

TERMS, 1913–14. The academic year begins on Oct. 1. Classes open between Oct. 6 and 15, and re-open after Xmas vacation between Jan. 5 and 13. Classes in Arts, Med., and Science re-open after Easter holidays on April 14. Classes in Law re-open on May 12.

DEGREES, &c. Arts—M.A., D.Phil., D.Litt.; Science—B.Sc. (in Pure Sc., Engin., Agric., Forestry, Vet. Sc., or Pub. Health), D.Sc. (in Pure Sc., Engin., Vet. Sc., or Pub. Health); Divinity—B.D., D.D. (Honorary); Law—B.L., LL.B., LL.D. (Honorary); Medicine—M.B., Ch.B., M.D., Ch.M.; Music—Mus.B., Mus.D. (in course or Honorary); *Diplomas* are granted in Tropical Med. and Hygiene and in Psychiatry, and a *Certif.* in Diseases of Trop. Climates.

ARTS. The courses are organized in the following Depts.: Langs. and Lit.; Ment. Philos.; Science; Hist. and Law. For the purpose of reckoning duration of study an academic year is constituted by attendance on at least one course of study in each of the 3 terms. As in other Scottish Univs., there is no B.A. degree. The M.A. course extends over 3 yrs. A candidate for the degree must present a certif. not only of regular attendance, but also of having duly performed the work of the classes in the qualifying courses. The period of study in the Univ. may be reduced to 1 yr. (the last) in the case of students from other Scot. Univs., and to 2 yrs. (which must include the last) in the case of a grad. of, or person who has attended for a year and passed an Interm. examn. in, one of the following Univs.—all Engl. Univs., Dub., McGill, Tor., Dal., Queen's (Can.), Manit., Melb., Syd., Adel., N.Z., Cape, the Indian, and certain foreign Univs. The curriculum for the ordinary degree must include 7 courses from three of the four Depts. above mentioned. Candidates for the Honours Degree must take 2 subjects outside their Honours Group.

* New apptmt.

SCIENCE. A B.Sc. curriculum in *Pure Science* covers 3 yrs. Seven courses must be taken, of which four must be taken in the Univ. The other three may be taken in approved institns. or under recognized teachers, provided that the fees for attendance in Edin. must not be less than according to the Univ. scale. The list of approved institns. includes, in addition to those situated in the U.K., the following Univs. and Colls. in the overseas Dominions: Adel., Dal., McG., Melb., Queen's (Can.), Syd., Tor., Wellington Coll., N.Z., Stellenbosch Coll., Madras Coll. of Agric., Colls. affiliated up to B.A. and B.Sc. standards to Indian Univs. and Engin. Colls. affiliated to these Univs. The recognized teachers include five in S.A. Coll., Cape Town. In *Engineering* and *Agriculture* similar rules apply. Eleven courses must be taken, of which five must be taken in the Univ. The Prelim. examn. must be passed before the First Science examn. is taken, but not necessarily before entering on the courses. As regards Agric., residence and practical work on a farm for 12 mos. are required. In *Forestry* also the curriculum extends over 3 yrs. Ten courses must be taken, of which five must be taken in the Univ. A candidate for the B.Sc. in *Vet. Science* must (i) have passed the Prelim. examn. prescribed for degrees in Science; (ii) have been engaged in vet. study for 4 yrs.; (iii) have a registrable qualification; (iv) have attended certain specified courses, including 1 yr. of study in this Univ. The Royal (Dick) Vet. Coll., Edin., provides courses qualifying for admission to the Univ. examns. The B.Sc. in *Pub. Health* is open to grads. in Med. of Univs. of the U.K. and McGill, and Queen's (Can.), and certain foreign Univs. who have passed the prescribed examns. Admission to the 1st examn. is conditional on proof of (i) practical study, after graduation in Med., of Bact. and Path. and Chem. as applied to Pub. Health, during 8 mos., of which 5 must have been in the Edin. Pub. Health Lab.; (ii) attendance at sufficient and appropriate courses in Phys. and Geol. The 2nd examn. may be taken, not sooner than 6 mos. after passing the 1st, on proof of having, subsequent to graduation, (i) attended satisfactory courses in Med. and Engin. in relation to Pub. Health; (ii) done practical work during 3 mos. (separate from the period of Lab. instruction) under supervision in Pub. Health administration; (iii) attended during 3 mos. at an Infec. Dis. Hospl.; (iv) received instruction during 3 mos. in Mensuration and Drawing under a recognized teacher.

DIVINITY. The B.D. examn. is open to (1) a grad. in Arts of this Univ. who has taken a complete Theol. course in a Scot. Univ. or other specially recognized institn.; (2) a grad. in Arts of any Scot. or other specially recognized Univ. who has completed his Theol. course, of which not less than 2 yrs. has been in this Univ. The Gifford Lectures on Nat. Theol. are open to the public.

LAW. The course for the B.L. covers 3 yrs., of which 2 must be spent in this Univ. Before entering on the course a student must have passed the Arts Prelim. examn. or its equivalent, Latin being one of the subjects. The course for the LL.B. also covers 3 yrs.,

but only 1 need be spent in this Univ. The examns. for this degree are only open to grads. in Arts of a Univ. of the U.K. or of All., Calc., Mad., Cape, Dal., McG., N.Z., Queen's (Can.), Tor., or certain foreign Univs. Either degree (the B.L. or LL.B.) admits, on certain conditions, to the profession of Law Agent. The LL.B. admits, if certain subjects have been taken, to the profession of Advocate.

Medicine and Surgery. The M.B. and Ch.B. must be taken together. Of the necessary 5 yrs. of medical study 2 must be spent at this Univ. The other 3 may be spent in any Univ. of the U.K. or other recognized institn. or under recognized Teachers. The fees for attendance in Edin. must not be less than according to the Univ. scale. The prescribed Prelim. examn. must have been passed or exemption obtained before entering on the course. A M.B. or Ch.B. of at least 24 yrs. of age who has subsequent to graduation been engaged for at least 1 yr. in the Med. (or Surg.) wards of a hospl. or scientific work, or 2 yrs. in practice not restricted to Surg. (or Med.), and passed the prescribed examn. and submitted a satisfactory thesis, may be admitted M.D. or Ch.M., as the case may be. The extra-academical teachers whose courses are recognized as qualifying for graduation include teachers in six of the S.A. Colls. as well as in 13 towns in the U.K.

The *Diploma in Tropical Med.* and Hygiene is conferred on graduates in Med. and Surg. of this Univ. and also on registered Med. practitioners satisfying certain requirements who have attended the prescribed courses and passed the requisite examns. The *Psychiatry Diploma* examn. is open to any registered medical practitioner or graduate of this Univ. who completes the prescribed course extending over 1 yr. or has held an asylum appointment for 2 yrs.

Post-grad. courses in Med. are given in the summer vacation.

Hospitals. The Infirmary, 900 beds; Children's Hospl., 120; Maternity, 40; Fevers and Infec. Dis., 600; Asylum, 500. Total number of beds available for clinics, 2160. Over 50 resident posts in these hospls. are given annually to medical graduates.

Music. Candidates for the Mus.B. must have passed the prescribed Prelim. examn. or its equivalent and attended a course in this Univ. during a whole winter session. A Mus.B. of 3 yrs. standing may offer himself for the Mus.D. This degree may be conferred *honoris causâ tantum.*

Training of Teachers. A Diploma is granted by the Edin. Provincial Committee for the Training of Teachers to grads. (of any recognized Univ.) who complete the courses prescribed by the Committee, including attendance at the Univ. class in Educn. and at other Univ. courses. St. George's Training Coll. prepares women students for teaching in Interm. and Secondary schools.

Military Education. A Univ. candidate for an Army Commission must attend the course of Milit. Lectures during at least 2 yrs. of his degree course.

Higher Degrees and Post-grad. Courses in Arts and Science. The D.Sc. degree is open to (1) a B.Sc. or a M.A. with 1st or 2nd class Honours of this Univ. of 5 yrs. standing; (2) a graduate of another Scot. Univ. with a degree deemed equivalent to the Edin. M.A. with 1st or 2nd class Honours; (3) a research student who has, in pursuance of the regns. mentioned in the next para., spent 2 winter sessions or their equivalent in satisfactory special study or research in this Univ., and has held for 5 yrs. a degree of B.Sc. or M.B. of a recognized Univ. or a degree of such a Univ. implying the attainment of the aforesaid standard. A satisfactory published memoir or work or a thesis recording an original research must be presented by a candidate for the D.Sc. The qualifications for admission to the D.Phil. and D.Litt. are the same, omitting "a B.Sc. or" from (1), and in (3) for "B.Sc. or," &c., substituting M.A. with 1st or 2nd class Honours of any Scot. Univ. or its equivalent. The thesis or published memoir or work must be an original contribution to learning. The D.Sc. in Engin. or Pub. Health or Vet. Science may be granted to a B.Sc. in the same Dept. of 5 yrs. (Vet. Sc. 3 yrs.) standing on presentation of a thesis or published memoir or work.

Facilities are provided in the Univ. for post-grad. work in Strength of Materials and Hydraulics. In the Heriot-Watt Coll. there is a course in Elec. Engin. for grads. By an agreement between the Univ. and the Heriot-Watt Coll. certain classes in the Coll. are recognized as qualifying attendances for the B.Sc. degree.

Research Students. Regns. provide for the admission (without necessarily passing any entrance examn.) of persons of good general education (whether grads. of other Univs. or not) for the purpose of prosecuting special study or research under supervision. The title of Research Fellow may be conferred with or without a stipend on specially distinguished students.

Scholarships for Graduates. There are about 70, and their aggregate value exceeds £6000. They are for the most part only open to grads. of or grad. students in the Univ., but the Shaw Mental Philos. Fellowship (£150 for 5 yrs.) and the four McCunn Med. Scholarships (£100 each for 1 yr. renewable, for research at home or abroad) are open to grads. in Arts and Medicine respectively of any Scot. Univ. In addition to the above the Earl of Moray's endowment provides £630 p.a. for the promotion of original research.

An Appointments Committee assists and advises students and grads. in obtaining educational and other posts. Among the public services for which application may be made through the Committee are the Egypt and Sudan Civil Service, Indian Educnl. Service, Indian Pub. Works Dept., P.O. Engin. Dept., and Agric. apptmts. under the Govt. of India and under the Colonial Govts. The Committee keeps a register of members of the Univ. desiring employment, obtains the testimony of Profs. and Lectrs. personally acquainted with them, and supplies information to employers seeking it.

WOMEN are admitted to graduation in all the Faculties except that of Divinity. They are admitted to classes in all the Faculties save that of Medicine. Women medical practitioners are now admitted to several advanced medical courses in the University. So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it is in the power of the Univ. Court to admit to examn. for graduation women who have received the requisite instruction in that subject in any Univ. of the U.K. or in any recognized Indian, Colonial, or Foreign Univ. or Med. Schools, or under recognized teachers.

RESIDENTIAL FACILITIES. The Students' Representative Council keeps a register of desirable lodgings. There are several residential Halls not under the control of the Univ., viz.: (1) for men students, Univ. Hall, founded 25 yrs. ago by Prof. Patrick Geddes; Ramsay Lodge; Blackie House; St. Giles House; Lister House; (2) for women students, Masson Hall; Muir Hall.

INDIAN STUDENTS. The Secy. of State for India, in consultation with the Univ. authorities, has appointed a local adviser of Indian students—Dr. J. Miller, 5 Hermitage Terrace.

The LIBRARY, founded in 1580, contains 270,000 printed vols. and 8000 MSS., and includes many rare specimens of early lit., some bequeathed by Drummond of Hawthornden in 1627. Among the special collections are those of works relating to Shakespeare; Persian and Arabic MSS.; works on Sansk. Lit.; works on the study of Celtic; Prof. Hodgson's collection of works on Econ. Science; 47 vols. of Math. tables by E. Sang. There are numerous departmental libraries —Theol. (10,000), Class. (1000), Mod. Langs., Philos., Hist., Physiol., Nat. Philos., Geol., Engin. (including Transactions of many Engin. Socs. in Gr. Brit. and America), Music.

There are MUSEUMS and LABORATORIES of Anat. (several thousand specimens, special collection illustrating Anat. of Cetacea, and very large collection of human crania from all parts); Art (Torrie Fine Art Gallery and Class. Art Museum); Chem. (places for 80 students); Econ. Entom.; Engin. (including Hydraulics Lab. and water tower); Geol. and Petrol.; Maths. (new Lab.); Mat. Med. (including a very complete collection of Med. and food substances), Forensic Med., Obst. and Gynæc., Pathol., Practice of Physic and Surg.; Nat. Hist.; Nat. Philos. (including a number of research rooms so arranged as to minimize vibration and variable magnetic conditions); Physiol.; Pub. Health (Inst. built 1902, costing £21,000); Music. There is a Botanic Garden with Herbarium. At the Millport Marine Station a table is rented by the Univ.

Students of Astron. obtain their practical course at the Royal Observatory, the Prof. of Astron. being at the same time Astron. Royal for Scotland.

A Farm near Penicuik has been acquired for animal breeding.

University Extension. The summer post-grad. courses in Med. are under the joint auspices of the Univ. and the R.C.P. and S. Edin. They are open to a limited number of students. The Univ. is now represented on the Advisory Committees for the management of the Tutorial Classes for adults instituted by the School Boards of Edin. and Leith, in co-operation with the Workers' Educnl. Assocn. Vacation courses in Mod. Langs. are given during Aug. in the Univ. buildings, but are not directly under the control and management of the Univ.

International Academic Committee. A Committee appointed by the teaching staff and the Students' Representative Council offer information and advice to foreigners desirous of studying in this Univ. and to Edin. students intending to study in foreign Univs. The students' section also maintains a unique system of Internat. Academic Consuls at the chief European Univs., to whom it issues letters of introduction.

Publications. *The Calendar*, issued in Aug., price 3s. net (includes abstracts of accts. and proceedings of Univ. Court as well as usual information) ; an annual report is published separately. Examn. Papers for the year are pubd. as follows : Prelim. in Arts, Sc., Law, and Music, 1s. ; Prelim. in Med., 6d. ; Degrees in Arts, 1s. ; Sc., 9d. ; Div., 6d. ; Law, 6d. ; Med., 6d. ; Mus., 6d. *The Student*, 2d., weekly during the winter terms and occasionally during the summer terms by the Students' Representative Council. *The Student's Handbook*, pubd. annually and given free to all matriculated students, contains full information as to curriculum courses, &c., and students' societies, &c.

THE YEAR 1912–13

Benefactions. Dalgety bequest, £10,000 for bursaries and prizes for Law students ; Stormonth Darling bequest, £500 to the General Univ. Fund ; Clason Harvie bequest, £800 towards endowment of Chairs in French and German ; Board of Agric. grant of £200 for animal breeding ; portrait by Guthrie of Principal Sir Wm. Turner, K.C.B. ; gift of the private residence in Edin. of late Rt. Hon. W. McEwan ; bust of John Wilson ("Christopher North"), Prof. of Moral Philos., 1820–23.

Special Event. A knighthood was conferred on the Professor of Physiology (E. A. Schäfer).

New Departments and Posts. A Math. Lab. has been instituted on novel lines for practical instruction in numerical, graphical, and mechanical calculation and analysis and for research. Chairs of Bact. ("Robert Irvine") and Clin. Med. ("Moncrieff Arnott") have

been instituted. New Lectureships in Arabic, Colonial and Indian Hist., English Law, Neurology, Physical Methods in the Treatment of Diseases, Skin Diseases (2nd Lectureship). New classes have been instituted or approved in Eccl. Hist. (original sources), Palæophytology, German (mainly for Science purposes). Engin. courses have for the first time extended over 3 terms.

University Extension, *see above*.

Number of Matriculated Students, 3404 (including 572 women), of whom more than one-third were Med. students. Of these 228 were from England and Wales, 95 from Ireland, 102 from India, 265 from British Colonies, 49 from foreign countries, and 591 belonged to Scotland. Non-matriculated students, 87 (39 women), chiefly attending Music and German Lit. classes. 69 women were attending extra-academical lectures with a view to graduation in Med.

Honorary Degrees. *D.D.*—The Hon'ble Arthur Gordon, M.A.; Charles Jerdan, M.A., LL.B., Greenock; George Marjoribanks, B.D., Stenton; Adam C. Welch, B.D., D.Th., Glasgow; Prof. Wilhelm Hermann, D.Th., Marburg, *in absentia*. *LL.D.*—Walter B. Blaikie; H. A. L. Fisher, M.A., Vice-Chancellor of the Univ. of Sheffield; Emer. Prof. Greenfield; Sir James Guthrie, President of the Royal Scottish Academy; the Rt. Hon. Lord Justice Hamilton; W. Allan Jamieson, M.D., C.M.; John Stewart, M.B., C.M., Nova Scotia; Geheimrat Prof. F. Strassman, Berlin; Prof. J. Arthur Thompson, M.A., Aberdeen; the Hon. James Wilson, Washington, U.S.A.; Prof. Thomas Gilray, M.A., Univ. of Otago, N.Z., *in absentia*; R. T. Omond, F.R.S.E., *in absentia*.

Other Degrees. M.A., 252; B.D., 6; LL.B., 20; M.B., C.M., 2; M.B., Ch.B., 201; M.D., 55; Mus.B., 2; D.Litt., 1; B.Sc., 71 (highest number ever reached); D.Sc., 4.

Diplomas. Trop. Med. and Hy., 1; Psychiatry, 4.

Changes in Regulations. Inclusive fees introduced for behoof of students intending to graduate in Law, in Arts, and in Pure Science. A modification of the Prelim. examns. system is under consideration.

New Buildings for the Agric., Forestry, and Entom. Depts. have been completed. A farm has been obtained at Fairslacks for cattle-breeding experiments.

Additions to Amenities. The buildings of the Edin. Indian Assocn. (largely composed of Indian students of the Univ.) were opened.

Other New Developments. A Local Representative has been appointed by the India Office for behoof of Indian students.

Relations with other Institutions. Arrangements have been made with the E. of Scotland Agric. Coll. with regard to instruction in Forestry.

A Joint Advisory Committee of the Univ. and Royal (Dick) Vet. Coll. on the curriculum in Vet. Science has been instituted.

An agreement has been made with the Board of Managers of the Royal Infirmary establishing a close and intimate relationship in respect of the work of the Pathol. Dept. and Clin. arrangements in Med., Surg., and Gynæc.

Notable Additions to Library. "Gallia Christiana," ed. D. Sammarthanus, 16 vols., 1856–09; Baronius, Raynaldus, and Laderchius, "Annales Ecclesiastici," 35 vols., 1864–80; "Les Filigranes," C. M. Briquet, 4 vols., 1907; "Die Ausstellung von Meisterwerken Muhammedanischer Kunst in München, 1910," F. Sarre and F. R. Martin, 1912, 3 vols.; "Exploration archéologique de Delos, faite par l'Ecole Française d'Athènes," fasc. 1–5, 1909–12; a Collection of Drawings, illustrative of Edinburgh, by Sir Daniel Wilson, LL.D., author of "Memorials of Edinburgh in the Olden Time."

UNIVERSITY OF GLASGOW

CHANCELLOR	The EARL OF ROSEBERY AND MIDLOTHIAN, K.G., K.T.
VICE-CHANCELLOR AND PRINCIPAL	Sir DONALD MACALISTER, K.C.B., M.A., M.D., D.C.L., LL.D.
RECTOR	Rt. Hon. A. BIRRELL, K.C., M.P. (for 3 yrs. from 1911).
DEAN OF FACULTIES	Emeritus Prof. W. STEWART, D.D., LL.D.
PARLIAMENTARY REPRESENTATIVE	Sir HENRY CRAIK, K.C.B., LL.D.
SECRETARY TO THE UNIV. COURT	A. E. CLAPPERTON, B.L.
REGISTRAR	A. MORRISON.
LIBRARIAN AND KEEPER OF HUNTERIAN BOOKS AND MSS.	J. L. GALBRAITH.
CLERK OF THE GENERAL COUNCIL	A. CRAIG, LL.B.
ADVISERS OF STUDIES: IN ARTS	R. A. DUFF, M.A., D.Phil.
IN LAW	Prof. W. M. GLOAG, K.C., B.A.
IN MEDICINE	Prof. D. NOËL PATON, M.D., B.Sc.

QUEEN MARGARET COLLEGE

Mistress	Miss F. H. MELVILLE, M.A., B.D.
Tutor in Arts	Miss M. G. MAY, M.A.
Tutor in Science and Medicine	Miss A. PICKEN, M.A., M.B., Ch.B.

PROFESSORS, LECTURERS, ETC.

ANATOMY (v. also *Embryol.*)

BRYCE, T. H., M.A., M.D.	Prof.
HUTTON, W. K., M.A., M.B., C.M.	*Lectr.
BUCHANAN, J., M.B., CH.B.	Asst.
STRACHAN, G. I., M.B., CH.B.	,,
THOMSON, A. G. W., M.B., CH.B.	,,
WALMSLEY, T., M.B., CH.B.	,,
YOUNG, M., M.B., CH.B.	,,

ARCHÆOLOGY, v. *Hist.* (*Greek and Roman*)

ASTRONOMY

BECKER, L., PH.D.	Prof.
CONNELL, J.	Asst.

BOTANY

BOWER, F. O., SC.D., F.R.S.	Prof.
DRUMMOND, J. M. F., M.A.	Lectr.
THOMPSON, J. M., M.A., B.SC.	Asst.

CHEMISTRY (v. also *Physiol. Chem.*)

FERGUSON, J., M.A., LL.D., F.S.A.	[Prof.

* At Q. Margaret Coll.

BOLAM, H. W., B.SC., PH.D. *Lectr.
ROBERTS, J., F.C.S. Asst.
HENDERSON, A., M.A., B.SC. Asst.
SCOTT, R., M.A., B.SC. Asst.
MARTIN, J. M. Asst. Demr.

Metallurgical Chem.
DESCH, C. H., D.SC., PH.D. Lectr.
WHYTE, S. Asst.

Organic Chem. [Lectr.
PATTERSON, T. S., D.SC., PH.D.
M'MILLAN, A., M.A., D.SC. Asst.
POLLOCK, E. F., PH.D. Asst.

Physical Chem.
SODDY, F., M.A., F.R.S. Lectr.
FLECK, A., B.SC. Asst.

DIVINITY
REID, H. M. B., D.D. Prof.

Biblical Criticism
MILLIGAN, G., D.D. Prof.

Church History [Prof.
COOPER, J., D.D., LITT.D., D.C.L.

ECONOMICS, v. *Pol. and Social Econ.*

EDUCATION [Lectr.
BOYD, W., M.A., B.SC., D.PHIL.

EMBRYOLOGY [Lectr.
GEMMILL, J. F., M.A., M.D., D.SC.

ENGINEERING (v. also *Mining*)
MORLEY, T. B., B.SC. Lectr.
THOMSON, D., B.SC. Lectr.

Civil Engin. and Mechanics
CORMACK, J. D., D.SC. Prof.
BROWN, R. M., B.SC. Young Asst.
TACKLEY, A. L., B.SC. Asst.
MILNE, A. S., B.SC. Asst.
THE LECTRS. IN ENGINEERING SUBJECTS Assts.

Electrical Engin.
NICHOLSON, J. S., B.SC. Lectr.

Engin. Drawing, &c.
BAMFORD, H., M.SC. Lectr.

Naval Architecture, including Marine Engineering [Prof.
BILES, PROF. SIR J. H., LL.D., D.SC.
ROBB, A. M., B.SC. Asst.

GEOGRAPHY [Lectr.
FALCONER, J. D., M.A., D.SC.

GEOLOGY [Prof.
GREGORY, J. W., D.SC., F.R.S.
TYRRELL, G. W., A.R.C.S. Lectr. and Asst.
MACPHEE, MARGARET F. Asst. Demr.
STEVENS, A., M.A. Asst. Demr.
SMELLIE, W. R., M.A., B.SC. Demr.

HISTORY (v. also *Div.* and *Law*)
MEDLEY, D. J., M.A. Prof.
ROBIESON, W. D., M.A. Asst.
MAC CUNN, F. J., B.A. Lectr. & Asst.

British History [Lectr.
BLACK, J. B., M.A. (Asst. in *Hist.*)

Greek Hist. and Archæol. [Lectr.
HALLIDAY, W. R., B.A., B.LITT.

Roman Hist. and Antiquities
MILLER, S. N., M.A. Lectr.

Scottish Hist. and Lit.
RAIT, R. S., M.A. OX. Prof.

LANGUAGE and Literature

Arabic
WEIR, T. H., B.D., M.R.A.S. Lectr.

Celtic
CALDER, G., B.D. Lectr.

English Lang. and Lit.
DIXON, W. M., LITT.D. Prof.
SMART, J. S., M.A., D.LITT. Asst. and *Lectr.
KNOX, R. S., M.A. Asst.
GRAY, MARGARET M., M.A. Asst.
GIRVAN, R., M.A. Lectr. (*E. Lang.*)

French Lang. and Lit.
MARTIN, C., M.A. PARIS, O.I. Lectr.
PITOY, L. M., B.SC., L.-ÈS-L. PHIL. Asst.
COTTIN, H. E., B.-ÈS-L., D.-EN-D. ,,

* At Q. Margaret Coll

German Lang. and Lit.
SMITH, H., PH.D. Lectr.
BROECKER, F. Asst.
Greek
DAVIES, G. A., M.A. Prof.
RENNIE, W., M.A. Asst. & Lectr.
GOMME, A. W., B.A. Asst. & Lectr.
Hebrew and Semitic Langs.
STEVENSON, W. B., B.D., D.LITT. Prof.
BUCHANAN, J. R., B.D. Asst.
Italian Lang. and Lit. [Lectr.
GRILLO, E., LITT.D. FLOR., LL.D.
Latin [*Humanity.*
PHILLIMORE, J. S., M.A. Prof. of
NISBET, R. G., M.A. Asst.
RANKIN, D., B.A. Lectr. and Asst.
MARTIN, H. F., M.A. Asst.
Scottish, v. *Hist.*

LAW (v. also *Med.*, *Forensic*)
GLOAG, W. M., K.C., B.A. Prof.
Civil Law
DUNBAR, W., LL.B. Lectr.
Const. Law and Hist. [Lectr.
M'KECHNIE, W. S., LL.B., D.PHIL.
Conveyancing
MOIR, J., LL.D. Prof.
GUY, W. Asst.
Evidence and Procedure
LAMOND, R., LL.B. Lectr.
Internat. Law, Public, and Internat. Private Law
CHARTERIS, A. H., LL.B. Lectr.
Jurisprudence, Genl.
MITCHELL, A. A., LL.B. Lectr.
Mercantile Law
WRIGHT, T. G., LL.B. Lectr.

LOGIC and Rhetoric
LATTA, R., M.A., D.PHIL. Prof.
BODIN, A. H., M.A. Asst.
ANDERSON, W., M.A.
*Lectr. in *Logic*, and Asst.
RUSSELL, L. J., M.A., B.SC. ,,

MATHEMATICS
GIBSON, G. A., M.A., LL.D. Prof.
BELL, R. J. T., M.A., D.SC.
Lectr. and Asst.
M'ARTHUR, N., M.A., B.SC.
Lectr. and Asst.
STOKES, G. D. C., M.A., D.SC. ,,
MACROBERT, T. M., M.A., B.SC. ,,
M'WHAN, J., M.A., PH.D.

MEDICINE and Surgery
Bacteriology
MARTIN, W. B. M., M.D. Lectr.
Dermatology
NICOL, J. W., M.B., C.M. Lectr.
Diseases of the Ear
BARR, T., M.D. Lectr.
BARR, J. S., M.B., CH.B. Asst.
Diseases of the Eye
RAMSAY, A. M., M.D. Lectr.
Diseases of the Nose and Throat
DOWNIE, J. W., M.B., C.M. Lectr.
Forensic Medicine
GLASTER, J., M.D. Prof.
ALLISON, A., M.B., CH.B., D.P.H. Asst.
M'NAUGHT, P. R., M.B., CH.B. Asst.
Insanity
OSWALD, L. R., M.B., C.M. Lectr.
Materia Medica
STOCKMAN, R., M.D. Prof.
CHARTERIS, F. J., M.D., CH.B.
Asst. and Lectr.
MIDDLETON, J. C., M.A., B.SC., M.B., CH.B. Asst.
Medicine [Muirhead Prof.
HUNTER, W. K., M.D., D.SC.
HENDERSON, J., M.D., CH.B. Asst.
Medicine, Clinical
COWAN, J. M., M.D., D.SC. Lectr.
ANDERSON, J. B. M., M.B. Lectr.
Medicine, Practice of
MONRO, T. K., M.A., M.D., C.M. Prof.
ALLAN, G. A., M.B., CH.B. Asst
PATRICK, A., M.A., M.B., CH.B. ,,
Midwifery
CAMERON, M., M.D. Prof.
CAMERON, S. J., M.B., CH.B. Asst.
M'LELLAN, A. N., M.B., C.M. Asst.
Obstetrics and Gynæcology
KERR, J. M. M., M.D. Muirhead Prof.
M'ILROY, A. LOUISE, M.D., D.SC.
Asst.
HENDRY, J., M.A., B.SC., M.B. Asst

* At Q. Margaret Coll.

Pathology [Prof.
MUIR, R., M.A., M.D., SC.D., F.R.S.
DUNN, J. S., M.A., M.D., CH.B.
Lectr. (Path. *Histol.*) and Asst.
WILSON, G. H., M.B., CH.B. Asst.
TEACHER, J. H., M.A., M.D.
St. Mungo-Notman Prof.
KENNEDY, A. M., M.D., CH.B. Asst.
Pathology, Clinical
BROWNING, C. H., M.D. Lectr.
Surgery
MACEWEN, SIR W., D.SC. OX. AND T.C.D., F.R.C.S.I. (HON.), F.R.F.P. AND S.G. (HON). Prof.
MACEWEN, J. A. C., B.SC., M.B., C.M. Asst.
ROBERTSON, P. H., M.B., CH.B. ,,
MAC MURRAY, W., M.B., CH.B. ,,
KENNEDY, R., M.A., M.D., D.SC.
St. Mungo Prof.
MACKIE, W. C., M.B., CH.B. Asst.
Surgery, Clinical
ADAMS, J. A., M.D. Lectr.
M'GREGOR, A. N., M.D. Lectr.
NEWMAN, D., M.D. Lectr.

METALLURGY, v. *Chem.*

MINING
LATHAM, C., M.I.M.E. Prof.
ARNEIL, C. C. Asst.

NAVAL ARCHITECTURE, v. *Engin.*

PHILOSOPHY, MORAL (v. also *Logic and Psychol.*)
JONES, SIR H., LL.D., LITT.D., F.B.A. Prof.
SCOTT, J. W., M.A. Asst. and Lectr.
HETHERINGTON, H. J. W., M.A. ,,
ROBIESON, M. W., M.A. Asst.

PHILOSOPHY, NATURAL
GRAY, A., LL.D., F.R.S. Prof.
GRAY, J. G., D.SC.
Lectr. (*Physics*) and Asst.
HOUSTOUN, R. A., M.A., D.SC., PH.D.
Lectr. (*Phys. Optics*) and Asst.
ALLAN, G. E., D.SC
Lectr. (*Electricity*), Demr. (*Exper. Phys.*), and Asst.
GREEN, G., M.A., D.SC.
Lectr. and Asst.
GRAY, R. C., M.A., B.SC. Asst.
BURNSIDE, G. B. Asst.
BROWN, J., M.A., B.SC. Asst.

PHYSICS, v. *Philos. Nat., Chem., Engin.*

PHYSIOLOGY
PATON, D. N., M.D., B.SC. Prof.
CLARK, G. H., M.B., CH.B., D.P.H.
Lectr. and Asst.
BURNS, D., M.A., B.SC. (Muirhead Demr.) Asst.
WATSON, A. M. Asst.
Physiol. Chem.
CATHCART, E. P., M.D., D.SC. Lectr.

POLITICAL ECONOMY
SMART, W., D.PHIL., LL.D. Prof.
JONES, J. HARRY, M.A. Asst.
STALKER, D., M.A.
Lectr. (*Econ. Hist.*) and Asst.

POLITICAL PHILOSOPHY
DUFF, R. A., M.A., D.PHIL. Lectr.

PROTOZOOLOGY
DUNKERLY, J. S., B.SC. Lectr.

PSYCHOLOGY
WATT, H. J., PH.D., D.PHIL. Lectr.

SOCIAL ECONOMICS
JONES, J. H., M.A. Lectr.

THEOLOGY, v. *Divinity*

ZOOLOGY (v. also *Embryology*)
KERR, J. C., M.A., F.R.S. Prof.
AGAR, W. E., M.A., D.SC.
Lectr. and Asst.
THE LECTR. IN PROTOZ. Asst.
FLOYD, J. M. F., B.A. Asst.
STAIG, R. A. Asst.

CHANGES IN STAFF

Addison, W. I., Registrar, deceased.
Bamford, H., apptd. Adviser of Indian Students.*
Barr, A., D.Sc., Reg. Prof. of Civil. Engin., resigned.
Calder, G., apptd. *vice* Henderson.
Cormack, J. D., of Univ. Coll., London, apptd. *vice* Barr.
Gemmell, S., Prof. of Practice of Med., deceased.
Henderson, G., Lectr. in Celtic, deceased.
McCallum, J. A., Lectr. in Genl. Jurispr., resigned.
Mitchell, A. A., apptd. *vice* McCallum.
Monro, T. K., apptd. *vice* Gemmell.
Morrison, A., apptd. *vice* Addison.
Rait, R. S., of New Coll., Ox., apptd. Prof. of Scot. Hist. and Lit.*

GENERAL INFORMATION (*v. also* Appendix IV)

Faculties. Arts, Science, Theology, Law, Medicine. In the Faculty of Science are included Pure Science, Engineering (Civ., Elec., Mech., Mining, Nav. Archit.), Agric., Pub. Health, and Pharmacy.

Terms 1913–14. In Arts the first term begins Oct. 13 and ends Dec. 19; second begins Jan. 6, ends March 19; third begins April 21, ends May 22. In Science, Law, and Med. there are two sessions: winter, beginning Oct. 13 and ending March 19, and summer, beginning April 21 and ending June 30. In Theol. the teaching does not extend beyond the winter session.

Degrees, Diplomas, &c. Arts—M.A., D.Phil., D.Litt.; Science—B.Sc., D.Sc., B.Sc. Pub. Health, D.Sc. Pub. Health, B.Sc. Pharm.; Theology—B.D.; Law—B.L., LL.B.; Medicine—M.B., Ch.B., M.D., Ch.M. *Hon. Degrees*—D.D. and LL.D.; *Diploma* in Education; *Certificates* of Proficiency in Engin. Science and in Mining Engin.

Arts. In this as in other Scot. Univs. there is no B.A. degree. The M.A. course extends over 3 annual sessions, each session including not less than 25 weeks. Candidates are required to present certifs. not only of regular attendance, but also of having duly performed the work of the classes in the qualifying courses; the first 2 yrs. may be spent in any Scot. Univ.; or the Senatus may accept in lieu of the work of one of the 3 sessions attendance at other Univs. specially recognized by the Court. The following are the Honours groups: Celtic; Class.; Engl.; French and Ger.; French, Ital., and Latin (any two); Germanic Lang.; Semitic Lang. and Lit.; Philos.; Maths., Nat. Philos., and Astron. (any two); Econ., Hist.

Ad eundem degrees are given for distinguished merit or to incumbents of academic offices in this Univ.

* New apptmt.

SCIENCE (*see also under* Affiliation). The B.Sc. in *Pure Science* requires 3 yrs. study. Seven courses must be taken, of which 4 must be taken in the Univ. The fees for attendance at approved institns. or under recognized teachers in Glas. must not be less than according to the Univ. scale. In *Engineering* similar rules apply, but there are 9 courses, of which 5 must be taken in the Univ. For the B.Sc. in *Mining Engin.* 6 mos. practical work in a mine is obligatory. The Home Dept. recognize the B.Sc. in Mining and the Certif. of Proficiency for the purposes of the Coal Mines Regn. Act, 1903. Certifs. of Proficiency in Engin. Sc. and in Mining Engin. require 3 yrs. study, but candidates are not required to pass the Prelim. examn. For the B.Sc. in *Agriculture* rules similar to those for the B.Sc. in Pure Science apply. Five out of 12 courses must be taken in the Univ. The course in Agric. and Rur. Econ. must be in the Univ. or in the W. of Scotland Agric. Coll. Residence and practical work on a farm for 12 mos. are required. The B.Sc. *Pub. Health* is open to grads. in Med. of a recognized Univ. It involves courses in Diseases of Animals (8 mos., including 5 in the P.H. Lab. of Glas. Univ.), in Med., and in Engin. in relation to P.H. ; practical work under supervision in P.H. administration for 6 mos. ; attendance during 3 mos. at a recognized Infec. Dis. Hospl. ; 3 mos. instruction in Mensuration and Drawing under a recognized teacher. All these must be subsequent to graduation. Candidates must also be qualified in Phys. and Geol. The B.Sc. *Pharm.* is open to grads. in Med. of a recognized Univ. and to registered chemists and druggists. The regns. are in other respects similar to those for the B.Sc. in Pure Science.

THEOLOGY. The B.D. examn. is open to grads. in Arts of any Scot. or other specially recognized Univ. A grad. of Glas. must have taken a complete 3 yrs. Theol. course in one or more of the Scot. Univs. or specially recognized institns. A grad. of another Univ. must have taken 2 yrs. of his Theol. course in Glas.

LAW. The LL.B. is open to grads. in Arts of Univs. of the U.K. and of specially recognized Univs. The course extends over 3 yrs., of which one must be spent in Glas ; the other 2 may be spent in a specially recognized Univ. or School of Law. The B.L. course extends over 3 yrs., of which 1 may be in any Scot. Univ. or a Univ. or School of Law specially recognized. A Prelim. examn., including Latin, must have been passed before entering on the course.

MEDICINE. Ordinance 13 of the Univ. Commission (1889) provides that every candidate for a med. degree shall be examined in each subject by at least two examrs., of whom one shall not be a Prof. or Lectr. in the Univ. The M.B. and Ch.B. must be taken together. Two of the requisite 5 yrs. of med. study must be spent in the Univ. The provision as to fees mentioned under Pure Science applies to Med. also. *Hospitals* available for clinics—Western and Royal Infirmaries (1200 beds) ; Victoria Infirmary ; Ruchill and Belvidere Hospls. (for fevers) ; Eye Infirmary ; Ophthalmic Institn. ; Glas. Roy. Asylum, Gartnavel ; Gartloch Asylum, Gartcosh.

Training of Teachers. The *Diploma in Education* is open to grads. in Arts or Science of a recognized Univ., and implies 3 yrs. (or, after graduation, 1 yr.) of professional training. It is in two grades—"General" and "With distinction." The practical part of the training of the numerous students in the Arts faculty preparing for the teaching profession is given by the Glas. Provincial Committee for the Training of Teachers.

Higher Degrees in Arts and Science. The D.Sc. is open to Glas. grads. of 5 yrs. standing who have passed the examn. in an Honours group for the M.A. or the Final for the B.Sc. in Pure Science or Engin., and to Research students, admitted under Ordinance 61 (*see* next para.), who are grads. of 5 yrs. standing of any Scot. Univ., or, if the Senatus be satisfied as to the value of the degree, of any other specially recognized Univ., and have spent 2 terms in each of 2 yrs. in Glas. Univ. in satisfactory work. An approved thesis recording original research in relation to science, or an important Engineering work designed by the candidate and carried out, is required. The requirements for the D.Phil. and D.Litt. are similar, but the thesis must be an original contribution to learning in relation to Philos. or Lit., as the case may be. These degrees may not be conferred *honoris causa*.

Research Students. Ordinance 61 provides for the admission, without necessarily passing an entrance examn., of persons of good general education for the purpose of special study or research, and the conferment of the title of Research Fellow on specially distinguished students. Stipends may be given to Research Fellows. In 1912–13 work was carried on by 25 research students, and special teaching given by 11 (*see also* p. 178, "The Year 1912–13—Affiliation").

Scholarships, &c., for Graduates. There are 58 administered by this Univ., of the aggregate annual value of about £4300. Most are open to Glas. grads. only, but the Black Theol. (£147 for 2 yrs.) and six Ferguson (£80 each for 2 yrs.) are open to M.A.'s of any Scot. Univ., the Mackinnon (£60 for 1 yr.) is open to any student, and the James Watt (£42 for 2 yrs.) to any B.Sc. This Univ. also nominates annually to one of the 1851 Exhibition Science Research Scholarships, and participates as a Scot. Univ. in the benefits of the MacCunn and the Shaw Philos. Scholarship endowment.* Lloyd's Register offer three Scholarships of £50 each tenable for 3 yrs. by students of Naval Archit. in this Univ.

Women are admitted to study and graduation in all Faculties on equal terms with men. The buildings and grounds belonging to Queen Margaret Coll. were acquired on condition that they should be devoted to classes for women exclusively.

Residential Facilities. Queen Margaret Hall of Residence has not sufficient accommodation for all women students. Lists of private

* *v.* p. 165.

lodgings for men and women are kept, but there is no inspection or approval of the men's rooms. There are a Church of Scotland Residence for students in Div. and Arts preparing for the Ministry and 2 small hostels for Med. students. Further developments are contemplated. The Univ. Students' settlement has accommodation for 13.

Indian Students. The Secy. of State for India, in consultation with the Univ. authorities, has appointed an adviser—H. Bamford, M.Sc., A.M.I.C.E.

Appointments There is a Committee of the Senate for external examns. and apptmts. It supplies students with information and nominates candidates for certain apptmts., *e.g.* for the Civil Service of Egypt and the Soudan and the Ind. Educn. Dept. Students and grads. are having recourse to the Committee in increasing numbers. An effort has been made to find openings for grads. in commercial and industrial concerns.

The Library was founded in the 15th century. Its growth in recent years has been rapid. The Ewing bequest of 15,000 vols. included many books printed in the 15th and 16th centuries and 2000 Bibles. Other recent additions are: Sir W. Hamilton's collection of 8000 vols. (chiefly Classics, Logic, and Metaphysics); Walker-Arnott Botanical Collection, 970; Stillie Musical Library, 760; M'Grigor's 655 vols. on Palestine; MacCallum's Celtic Library, 3000; Veitch Mediæval Philos. Collection, 600; Alexr. Robertson Theol. Library, 3800. Its increase is further provided for by annual grants of £707 from the Univ. Court and £100 for scientific periodicals from Bellahoustoun trustees. The Carnegie Trust gave £1000 p.a. for 5 yrs. from 1908. There is a Divinity Hall Library for Theol. students.

Museums and Laboratories. The Hunterian Museum, founded 1718, contains Med. preparations, Zool. and Mineral. specimens, books, MSS., coins, paintings, and Archæol. objects, including a collection of Roman inscriptions from the Antonine Vallum, the Eck Collection of minerals and precious stones, and the contents of the Zool. and Ethnol. museum formerly attached to the Andersonian Univ. Catalogues of coins, stones, MSS., and Med. preparations have been published.

An Observatory is situated near the Univ. buildings.

The Marine Biological Station, Cumbrae I., for the Clyde Sea Area and West Coast has two tables for Glas. Univ. students.

Evening Classes. A school for the study of Civic and Social Problems is conducted, chiefly by Univ. Lectrs., and the Univ. provides rooms for the classes (which are held in the evening), but the students are not Univ. graduating students and the Univ. takes no official responsibility for the management. The course extends over 2 yrs. and includes practical work. A certif. is given. The lectures are well attended.

PUBLICATIONS. The *Calendar*, issued in July. *Glasgow Univ. Magazine*, weekly during the winter session. The Examn. Papers set in the Prelim. and Degree Examns. (M.A., B.Sc., M.B., Ch.B., B.D., B.L., and LL.B.) are pubd. annually, price 6d. each. *The Students' Handbook* is pubd. annually and given free to each matriculated student.

AFFILIATED COLLEGE. The Royal Technical Coll., Glasgow (*see below*, "Affiliation").

THE YEAR 1912–13

BENEFACTIONS RECEIVED. £20,000 for a Chair of Scot. Hist. and Lit. (including £5000 from the Scot. Exhibn. of Nat. Hist., Art, and Industry, 1911, and £5000 collected subscriptions); £10,000 bequest for the Dr. Robert Pollok Lectureship for Research in Mat. Med. and Pharmacol.; bequest for a Chair of Mod. Lang.; £162 for founding a Dr. Miller Prize in Theol.; a gift for founding a Bradley Medal for English.

NEW APPOINTMENTS CREATED. A Chair of Scot. Hist. and Lit. has been founded (*see above*, "Benefactions").

NUMBER OF STUDENTS, 2835 (including 648 women). These figures include summer students (in Med., 50; in other faculties, 25) as well as whole-session students.

HONORARY DEGREES CONFERRED.—*LL.D.*—Field-Marshal Earl Roberts, V.C., K.G., &c.; Francis Thornton Barrett; Sir Robert Chalmers, K.C.B.; Prof. Arthur Surridge Hunt, D.Litt., M.A., Ph.D.; Prof. Lawrence Pearsall Jacks, M.A.; Sheriff James Gardner Millar, K.C., LL.B.; George Saunders, B.A. *D.D.*—William Ewing, M.A.; John Neville Figgis, Litt.D.; Principal George Pearce Gould, M.A.; George Herbert Morrison, M.A.; David Watson; John Rudge Wilson, M.A.

OTHER DEGREES.—M.A., 274 (including 121 women); B.Sc., 98 (3 women); D.Sc., 5 (1 woman); M.B., Ch.B., 90 (9 women); M.B., C.M., 2; M.D., 25; LL.B., 13; B.L., 7; B.D., 7; total, 521 (134 women).

AFFILIATION. An ordinance has recently been passed affiliating the Royal Technical Coll., Glasgow, with the Univ. Candidates for degrees in Applied Science (Engineering, &c.) may attend courses, and research students may prosecute their research work either in the Univ. or in this Coll.

CONFERENCES. Representatives of the Univs. of Ox., Camb., Lond., St. And., Glas., Leip., and Leyden took part in a conference held in Glas., June 25–27, 1913, for the advancement of Biblical Study.

UNIVERSITY OF HONG-KONG

[Incorporated under local ordinance March 30, 1911. Opened March 11, 1912, when the teaching staff of the Hong-Kong Coll. of Medicine became Lectrs. in the Faculty of Medicine. On March 11, 1917, the Coll. is to be dissolved and merged in the Univ.]

PATRON	HIS MAJESTY THE KING.
CHANCELLOR	THE GOVERNOR OF HONG-KONG.
VICE-CHANCELLOR, PRINCIPAL, AND PRESIDENT OF THE SENATE	Sir CHARLES ELIOT, K.C.M.G., C.B., M.A., D.C.L., LL.D.
PRO-VICE-CHANCELLOR	G. P. JORDAN, M.B., C.M., M.R.C.S.
REGISTRAR	W. J. HINTON, B.A.

PROFESSORS, LECTURERS, ETC.

ANATOMY [Prof.
DIGBY, K. H., M.B., B.S., F.R.C.S.

BIOLOGY, v. *Physiology*

CHEMISTRY
FRANKLIN, A. C., F.I.C. Lectr.

CHINESE
AU TAI TIN Lectr.
LAI CHAI HI Lectr.

ENGINEERING [Taikoo Prof.
SMITH, C. A. M., M.SC., M.I.M.E.
Machine Design [Lectr.
WARREN, A. G., B.SC., A.M.I.E.E.
Materials
SURMAN, E. J., B.SC. Lectr.
Structures
MARLEY, G. E., A.M.I.C.E. Lectr.

ENGLISH
WRIGHT, J. D., M.A. Lectr.

HISTORY
SALT, A. E. W., M.A. Lectr.

LAW
(A part-time Lectr. in Comml. Law and Practice and a Lectr. in Internat. Law and Jurispr. are to be appointed.)

MATHEMATICS [Lectr.
STUART, T., M.A., D.SC., M.R.I.A.

MEDICINE and Surgery
Materia Medica and Therap.
MARRIOTT, O., M.D., B.S. Lectr.
Medical Jurisprudence
CLARK, F., M.D., M.R.C.P. Lectr.
Medicine [Lectr.
JORDAN, G. P., M.B., C.M., M.R.C.S.
KEYT, F. T., M.D., D.P.H. Lectr.
MCKENNY, C. W., M.D. Clin. Lectr.
Midwifery and Gynæcology
FORSYTH, C., M.D., F.R.C.S. ED. Lectr.
Pathology and Bacteriology
MACFARLANE, H., D.P.H. Lectr.
Surgery
KOCH, W. V. M., M.D. Lectr.
GIBSON, R. M., M.D., F.R.C.S. ED. Clin. Lectr.

PHYSICS
MATTHEWMAN, T. H., M.ENG. Lectr.
WARREN, A. G. (v. *Engin.*) Lectr.

PHYSIOLOGY & Biology [Prof.
MALCOLMSON, G. E., M.D., D.P.H.
ARTHUR, CAPT. D., B.SC., M.B., I.M.S. Lectr.

POLITICAL ECONOMY
HINTON, W. J., B.A. Prof.
TO BE APPOINTED Lectr.

PUBLIC HEALTH
PEARSE, W. W., M.D., D.P.H. Lectr.

GENERAL INFORMATION

The objects of the Univ. are the promotion of Arts, Science, and Learning, the provision of higher education, the conferring of degrees, the development and formation of the character of students of all races, nationalities, and creeds, and the maintenance of a good understanding with the neighbouring country of China. With reference to the first two of these objects, it was stated in various speeches which were made at the time when the scheme was inaugurated, more especially in those delivered at the laying of the foundation-stone, that the desire of the promoters was to begin with Faculties (Medicine and Engineering) which would be of practical utility to China in coping with disease, in developing her resources by railways and by the exploitation of her mineral wealth, and in checking by the light of modern engineering science the terrible floods which almost every year occasion famines and great loss of life. To these has been added, at the special request of the Chinese residents in Hong-Kong, a Faculty of Arts. The courses given in this faculty include Chem., Phys., Maths., Hist., the English and Chinese languages and literatures, and Pol. Econ.; specialized courses in the last-mentioned subject have recently been provided by the generosity of Mr. Cheung Pat Sze and his partners, who have also secured the establishment of a course in Internat. Law and Jurispr. That the degrees of the Univ. should be equal to those conferred by British Univs. was a fundamental proposition, and it was on this basis that the subscriptions were raised. The Viceroy of Canton (His Excellency Chang Jen Chun), who was an ardent supporter of the Univ., asked for an assurance on this point, and when satisfied issued a striking manifesto in support of the scheme. The original Committee recorded by resolution that the degrees should be equal to those of a British Univ., and this has been confirmed by a resolution of the Univ. Court. The standard aimed at is that of the Univ. of London, and the whole organization has been planned to this end. It is provided by Statute 20 that undergrads. shall ordinarily reside in the quarters provided or in hostels founded by religious bodies and conducted under regns. approved by the Council. The root idea of the Univ. is to provide a place for Higher Educn. where Chinese youths can remain under the influence of their own parents and guardians in the environment of their own people. Here they will be subject to the strong control which Chinese opinion exerts upon young men, instead of being adrift in a foreign country where undergraduates are allowed a liberty unknown to students in the East.

The Governor of the Colony is *ex-officio* Chancellor, and the Principal Civil Med. Officer, the Dir. of Pub. Works, the Dir. of Educn., and the

Registrar-Genl. (Protector of Chinese) hold *ex-officio* seats on the Court and Council.

MATRICULATION. Students before being admitted to the Univ. must be not less than 16 yrs. of age and must have passed or been exempted from the matricn. examn. in the prescribed subjects. This examn. has been devised with a view to the co-ordination and standardizing of the excellent work done by the Hong-Kong Govt. and other educational establishments and for use as a School-leaving Examn. The compulsory subjects in matricn. for the Faculties of Engin. and Arts are : Engl. and Maths ; for Med. : Engl., Maths., Latin or Classical Chinese or other Classical Oriental Language, and Greek or a Modern Language.

TERMS (approximately). Autumn, Sept. 15 to Dec. 20 ; spring, Jan. 5 to March 20 ; summer, April 1 to June 1.

DEGREES. B.A., M.B., B.S., M.D., B.Sc. (Eng.). The Univ. ordinance provides that at least one extern and independent examiner shall be appointed for each group of subjects forming part of the course of studies required for degrees. The Regns. provide that no student, unless exempted by special resolution of the Council, shall be admitted to the B.A. or B.Sc. (Eng.) degree until he has resided in the Univ. Hostel, or in one of the approved Hostels attached to the Univ., for 12 terms. For the M.B. and B.S. degree the prescribed period of residence is 15 terms. Students who are unable to reside during 1 term of the academic year may be allowed to reside in a hostel during the Long Vacation, and such residence counts as 1 term. No student is admitted to any examn. which is part of the course for a degree unless he has attended lectures and lab. classes to the satisfaction of the Dean of the Faculty.

ARTS. This faculty is intended chiefly for students who desire to adopt an official career or to go into commerce. The degree is made to conform as closely as possible to the Lond. Univ. Pass Degree in Arts or B.Sc. (Econ.), but there is an Interm. course in Econ. which includes Comml. Geog. and Descr. Econ. The subject will be treated in this Interm. course from a practical and descriptive point of view with special attention to local conditions.

MEDICINE. The M.B. and B.S. degrees must be taken together. Before entering for the Final (4th) Examn. candidates must, in addition to satisfying the requirements common to all Schools of Med. recognized by the Genl. Med. Council, have regularly attended the Med. and Surg. practice of approved hospls. for at least 9 terms after the 1st Med. examn. ; acted as dresser or surg. asst. in the surg. wards for 3 mos. and as Clin. Clerk for another 3 mos. The degree of M.D. is not to be conferred until the expiration of at least 5 yrs. after admission to the M.B. and B.S.

Clinical work is taught in the Tung Wah Hospl. (250 beds) and in the Nethersole and affiliated hospls. (100 beds), and there are ample opportunities of seeing the important work of the Sanitary Dept. of the Colony.

ENGINEERING. The B.Sc. (Eng.) is conferred in Civ. Mech. or Elec. Engin. For the first 3 yrs. all students take the same lectures.

RESIDENTIAL FACILITIES. University Hall (purely secular), *Warden*, F. Clark, M.D.; St. John's Hall (Church Missionary Soc.), *Warden*, W. H. Hewitt, M.A.; London Mission Hostel, *Warden*, E. B. Struthers, B.A., M.B.

LABORATORIES, &c. There are eight labs. and workshops with libraries. The Phys. Lab. contains the necessary apparatus for the usual testing work, such as is the regular course in the Engl. Univs. The Chem. and Path. and Bact. labs. are also well equipped.

PUBLICATIONS. The *Calendar* (in course of compilation), *Prospectus, Regns. for Students.*

THE YEAR 1912–13

BENEFACTIONS RECEIVED. $60,000 promised to be paid during the next 5 yrs. for the establishment of additional courses in Arts; apparatus to the value of over £6000; a large site presented by the Govt. of Hong-Kong for a playing-field, and $8000 (subscriptions) for levelling the ground; a building and site presented by the Govt. for a power station.

NUMBER OF STUDENTS. 76 entered in this (the first) year.

NEW BUILDINGS. Univ. Hostel, cost $80,000; School of Anat., $30,000. The London Mission Soc. opened a new Hostel.

THE NATIONAL UNIVERSITY OF IRELAND

[Constituted by Royal Charter dated Dec. 2, 1908, under Irish Univs. Act 1908 with effect from Oct. 31, 1909, the date of the dissolution of the Royal Univ. of Ireland.]

VISITOR	H.M. THE KING.
CHANCELLOR	The Most Rev. W. J. WALSH, D.D., Archbishop of Dublin.
VICE-CHANCELLOR	Sir CHRISTOPHER J. NIXON, Bart., M.D., LL.D.
PRO-VICE-CHANCELLORS	A. ANDERSON, M.A., D.Sc., LL.D., President, Univ. Coll., Galway. Sir BERTRAM C. A. WINDLE, M.A., M.D., D.Sc., LL.D., F.R.S., President, Univ. Coll., Cork. D. J. COFFEY, M.A., M.B., LL.D., President, Univ. Coll., Dublin.
REGISTRAR	Sir JOSEPH M'GRATH, LL.D.

CONSTITUENT COLLEGES. University Colleges, Dublin, Cork, and Galway.

RECOGNIZED COLLEGE. St. Patrick's College, Maynooth.

There is no University teaching staff apart from the staffs of the Colls., except the Prof. of Catholic Theology (Peter Finlay, S.J.).

Queen's Univ. in Ireland was founded in 1850 and dissolved on Feb. 3, 1882, its place being taken by the R.U.I. established by Charter dated April 27, 1880. On the dissolution of the R.U.I. and Queen's Coll., Belfast, on Oct. 31, 1909, there came into being the N.U.I., Univ. Coll., Dublin, and the Queen's Univ. of Belfast. From the same date the names of Queen's Coll., Cork, and Queen's Coll., Galway, were changed to Univ. Coll., Cork, and Univ. Coll., Galway, and they became with the new Univ. Coll., Dublin, constituent Colls. of the new N.U.I. Sec. 3 of the Irish Univs. Act 1908 prohibits religious tests in these Univs. and their constituent Colls., and provides for the protection of students against disrespectful treatment of their religious opinions on the part of Professors.

FACULTIES. (1) Arts; (2) Philos. and Sociol.; (3) Celtic Studies; (4) Law; (5) Medicine; (6) Science; (7) Engin. and Archit.; (8) Commerce. Agric. is included in Science; Educn. in Arts and in

Philos. ; Elec. Engin. in Science and in Engin. ; Music in Arts and in Celtic Studies ; Pub. Health in Medicine.

MATRICULATION involves the passing of the matricn. examn. or some other examn. recognized as exempting therefrom. No student can begin his course of study in the Univ. (whether entering for a degree or not) until he has completed his matricn. by passing in five of the prescribed subjects. Irish is an obligatory subject for all except students born, or for 3 yrs. immediately preceding examn. domiciled, outside Ireland, and these are expected to attend a course in Irish Lit. and Hist. prior to obtaining any degree. Students entering for degrees in Arts, Philos., and Celtic Studies must take Irish, Latin *or* Greek, Engl., and Maths. *or* Nat. Philos. Students entering for degrees in Med. must, if not already registered by the General Med. Council (in which case they may matriculate in any Faculty), take Irish, Latin, Engl., Maths. Students entering for degrees in Science and Commerce must take Irish, Engl., another approved Mod. Lang., Maths. or Nat. Philos., one other subject. Students entering for degrees in Engin. must take Irish, Engl., and Maths. or Nat. Philos. Other examns. recognized as exempting from the matricn. examn. are so recognized only to the extent to which they cover the subjects in which it is necessary for a candidate in the matricn. examn. of this Univ. to pass.

DEGREES in the several Faculties : (1) B.A., B.Mus., M.A., D.Litt., D.Mus. ; (2) D.Phil. ; (3) M.Litt.Celt., D.Litt.Celt. (Master and Doctor of Celtic Studies) ; (4) B.Sc., B.Agr.Sc., M.Sc., M.Agr.Sc., D.Sc. ; (5) LL.B., LL.D. ; (6) M.B., B.Ch., B.A.O. (Bachelor of Obstetrics), B.Sc. Pub. Health, M.Ch., M.A.O., M.D., D.Sc. Pub. Health, B.D.S. (Bachelor of Dental Surgery), M.D.S. ; (7) B.E., B.Arch., M.E., M.Arch. ; (8) B.Comm., M.Comm.

DIPLOMAS are awarded in the subjects of Faculties (1), (3), and (8), and in Pub. Health, Trop. Diseases, Ment. Diseases, Vet. Hyg., Agric., Music, Applied Sc., Educn., Archit., and Journalism ; *Certificates* in Commercial subjects.

COURSES AND EXAMNS. Subject to certain exceptions in favour of students and grads. of the late R.U.I., a student is not eligible for any Primary Degree (*i.e.* any of the Bachelorships other than the B.Sc. Pub. Health or the LL.B.) unless he has pursued after matricn. an approved course of study for at least 9 terms in the subjects prescribed for the degree and passed in those subjects at least the 1st Univ. and the Degree examns. The Senate may for sufficient causes allow 1 or 2 terms to be counted as kept by a candidate for the B.A. degree, although he may not have attended the prescribed approved course therein. An approved course may be pursued in the Univ. or in a constituent Coll., or, to the extent to which it is recognized, in a recognized Coll., or (as regards particular courses in special subjects forming component parts of approved courses) in such other place as

may be prescribed by regn., or partly in one and partly in another. The Senate may accept as equivalent to such parts of approved courses as may be determined by regns. periods of study passed at other Univs., provided that at least 3 terms must be kept in this Univ. by a candidate for a degree. For every examn. for degrees or Univ. Scholarships or prizes, at least one independent and extern examiner appointed by the Senate is associated with the other examiners, and his opinion cannot be overruled unless on the recommendation of two-thirds of all the members of the Standing Committee then in office. The same extern examiner examines at all centres in the same subject or group at the same examn.

Candidates for the *Diplomas* need not have matriculated at the Univ., but must, except for a Diploma in Arts subjects, have completed prescribed courses of study. The Diplomas in Pub. Health and Trop. and Ment. Diseases are awarded only to registered med. practitioners; the Higher Diploma in Educn. only to graduates of this or an approved Univ. Special provision is made for awarding Diplomas in Engin. to students of the late R.U.I.

Certificates in Comml. subjects are open to persons who have pursued prescribed courses in constituent or recognized Colls. or approved schools of Commerce.

Medicine, Surgery, and Midwifery. The M.B., B.Ch., and B.A.O. must all be taken together. Of the requisite 5 yrs. of Medical study at least 9 terms must be spent in pursuing the prescribed courses in the Univ. or one or more of the constituent Colls.

Dentistry. The course for the B.D.S. covers 12 terms after matricn. and registration as a dental student by the Genl. Med. Council.

Engineering and Architecture. The course for the B.Arch. covers 5 yrs. after matricn., including 2 spent in practical Archit. work.

Higher Degrees. The LL.B. may be taken by a B.A. of this Univ. of 6 terms standing who has pursued an approved course of not less than 9 terms in the Faculty of Law. The B.Sc. Pub. Health may be taken by a Med. grad. of the Univ. of 1 yr.'s standing who has pursued an approved course in the Faculty of Med.

The M.A. or M.Litt.Celt. may be taken by a B.A. of this Univ. (1) of 3 terms standing who after obtaining the degree has pursued for 3 terms an approved post-grad. course in the Faculty of Arts or Celtic Studies, as the case may be; or (2) of 6 terms standing who has passed a special examn. In either case a satisfactory dissertation is required. The M.Sc. may be taken under similar conditions by a B.Sc. The M.A. or M.Sc. may also be taken by a B.A. or B.Sc. (as the case may be) of at least 3 terms standing who after obtaining the degree has pursued for 3 terms an approved post-grad. course in Maths. or Math. Phys. or in both, and passed a special examn. for the Mastership on the said course. A dissertation may be submitted. The M.Sc. may also be taken by grads. of other Faculties on certain conditions.

The other Masterships may be taken 9 terms after the corresponding Bachelorships. The conditions include the passing of prescribed examns. A Med. grad. of this Univ. of 6 terms standing who has also graduated in the Faculty of Arts in this Univ. may be admitted M.D., M.Ch. or M.A.O.

The D.Litt., D.Phil., D.Litt.Celt., LL.D., D.Mus. may be taken 15 terms after obtaining the corresponding bachelorship; the D.Sc., 15 terms after the B.Sc. or B.A. or M.B. or B.E.; the M.D. or D.Sc. Pub. Health, 9 terms after the corresponding bachelorship. For the D.Sc. Pub. Health or M.D. examns. may be passed or a published work may be presented. For the other Doctorates an original work as well as (ordinarily) the passing of an examn. is required.

Higher Degrees for Research. The Univ. may grant the M.Litt.Celt., M.Sc., M.Agr.Sc., D.Sc., B.Sc. Pub. Health, M.E., M.Arch., or M.Comm. to grads. of other Univs. who, without having previously been admitted to the Primary Degree in this Univ., shall have carried on under prescribed conditions independent research in the Univ. or in a constituent Coll.

Tenure of office of Profs. and Lectrs. of the Univ. and of its constituent Colls. Saving the rights of existing officers, Profs. and Lectrs. apptd. before Oct. 31, 1916, are to hold office until that date. Every Prof. apptd. thereafter may hold office until he reaches the age of 65. Every Lectr. apptd. thereafter may hold office for 7 yrs. and be eligible for reapptmt. up to the age of 65. The retention of a Prof. or Lectr. after he has attained the age of 65 may be sanctioned annually up to the age of 70.

Scholarships for Graduates. Statute I provides (Ch. XLVIII) for the offer each year of three Travelling Studentships of £200 p.a. each, tenable for 3 yrs. outside Ireland and open to grads. of not more than 2 yrs. standing, 1 being for Med. students only. Coyne Memorial Scholarship, £32, is open to grads. in Arts of the Univ.

Women are declared by the Charter eligible equally with men to be members of the Univ. or of any authority thereof, and to hold any office or enjoy any advantages of the Univ.

Univ. Extension, &c. The Charter empowers the Univ. to examine and inspect schools and to provide lectrs. and instruction for persons who are not members.

Publications. The *Calendar* and *Pamphlet*, printed for the Univ. by Alex. Thom and Co., Ltd.

Recognition of Colleges and Teachers. The Charter and Statute I. provide for the recognition of Colls. in which matriculated students who are pursuing therein approved courses under recognized teachers may be given the right of obtaining degrees and other Univ.

privileges. No institn. may be so recognized which gives education of an intermediate or secondary kind. A recognized Coll. has to notify the Registrar of changes in the staff or courses. The Senate may call for reports and cause inspection to be made. In recognizing teachers of recognized Colls. the Senate specifies the subjects in which they are recognized. The only recognized Coll. is St. Patrick's College, Maynooth. Recognized Teachers of the Univ. in the Coll. : *Hebrew*, P. Boylan, M.A. ; *English*, C. Mulcahy, B.A. ; *French and German*, J. D. Croly, B.A. ; *Greek*, M. Sheehan, M.A., D.D., D.Ph. ; *Irish and Engl.*, P. MacSweeney, M.A. ; *Irish and Latin*, G. O'Nolan, M.A. ; *Latin*, J. F. D'Alton, M.A., D.D., H. J. Treston, M.A. ; *Ment. and Mor. Philos.*, M. Forker, D.Ph., P. Coffey, S.T.L., D.Ph., J. O'Neill, D.Ph. ; *Music*, H. Bewerunge ; *Maths. and Exper. Phys.*, J. Donaghy, D.Ph. ; *Maths. and Math. Phys.*, E. de Valera, M.A.

THE YEAR 1912–13

Benefactions and Fresh Sources of Revenue. The foundation and endowment by the Archbishops and Bishops of Ireland of a Prof'ship of Catholic Theology in the Univ., in accordance with the provisions of the Irish Univs. Act 1908, sec. 7 (4) ; the establishment and endowment in the Univ. of Scholarships in Engin. and Ment. and Mor. Science in alternate years, under the will of the late Pierce Malone, and in Literature under the Dr. H. H. Stewart bequests ; endowment of a gold medal and prize in French and German (Dr. W. A. Browne bequest).

Degrees and Diplomas Conferred in 1912–13 (excluding autumn 1913). D.Litt., 1 ; LL.D., 3 ; M.D., 6 ; D.Sc., 1 ; D.Mus., 1 ; M.A., 17 (including 5 women) ; M.Sc., 6 (1 woman) ; M.E., 3 ; LL.B., 3 ; M.B., B.Ch., B.A.O., 72 (3 women) ; B.A., 278 (76 women) ; B.Sc., 36 (2 women) ; B.E., 27 ; Higher Diploma in Educn., 20 (9 women) ; Diploma in Educn., 18 (1 woman) ; Diploma in Pub. Health, 8 ; Diploma in Agric., 1 ; total, 501 (including 97 women).

New Statutes have been made in regard to meetings and procedure of the Senate ; degrees in Science obtainable within 5 yrs. from the dissolution of the R.U.I. by B.A.s of the R.U.I. or the N.U.I. who have fulfilled certain conditions ; qualifications for the degrees of M.A. and M.Sc. ; distribution of subjects amongst the Faculties ; recognition of examns. as exempting from the matricn. examn. ; the conduct of examns. ; higher degrees for Research students ; Diplomas and Certifs.

UNIVERSITY COLLEGE, DUBLIN

[Constituted by Royal Charter dated Dec. 2, 1908, with effect from the Dissolution of the R.U.I. on Oct. 31, 1909.]

VISITOR	HIS MAJESTY THE KING.
PRESIDENT	D. J. COFFEY, M.A., M.B., B.Ch., B.A.O., LL.D.
REGISTRAR	Prof. A. W. CONWAY, M.A., D.Sc.
SECRETARY AND BURSAR	J. W. BACON, M.A.
LIBRARIAN	D. J. O'DONOGHUE.

PROFESSORS AND LECTURERS OF THE UNIVERSITY

ACCOUNTANCY
O'CONNOR, D., A.C.A. Lectr.

ANATOMY
MC LOUGHLIN, E. P., B.A., M.B. Prof.

ARCHÆOLOGY, Celtic [Prof.
MACALISTER, R. A. S., M.A., F.S.A.

ARCHITECTURE
SCOTT, W. A., A.R.I.B.A. Prof.

BANKING and Finance
LEET, F. L., LL.D. Lectr.

BOTANY
BUTLER, J. B., M.A., M.B. Prof.

CHEMISTRY
RYAN, H., M.A., D.SC. Prof.

COMMERCE
OLDHAM, C. H., B.A., B.L. Prof.
(v. also *Accountancy, Banking*)

DENTAL Mechanics
POTTER, J. I., L.D.S. Prof.
Dental Surgery [Prof.
SHERIDAN, E., L.D.S., F.R.C.S.I.

ECONOMICS, National, of Ireland
KETTLE, T. M., B.A., B.L. Prof.
(v. also *Commerce* and *Pol. Econ.*)

EDUCATION [Prof.
CORCORAN, T., S.J., B.A., D.LITT.

ENGINEERING, Civil
PURCELL, P. F., M.A., M.A.I. Prof.

GEOLOGY
SEYMOUR, H. J., B.A., F.G.S. Prof.

HISTORY
O'SULLIVAN, J. M., M.A., PH.D. Prof.
Early History, including Mediæval Irish
MAC NEILL, J., B.A. Prof.
History, Modern Irish
HAYDEN, MARY T., M.A. Prof.

HISTOLOGY, v. *Physiology*

HYGIENE, v. *Medicine*

LANGUAGES and Literature
Eastern Languages
BOYLAN, P., M.A. Prof.
English Literature
DONOVAN, R., B.A. Prof.
Engl. Lang. and Philology
O'NEILL, G., S.J., M.A. Prof.
French and Romance Philology
CADIC, E., D.LITT. Prof.

German
MACKEN, MARY, M.A. Prof.
Greek
BROWNE, H., S.J., M.A. Prof.
Irish, Early and Mediæval
BERGIN, O., B.A., PH.D. Prof.
Irish Lang. and Lit., Modern
HYDE, D., LL.D., D.LITT. Prof.
Irish [Lectr.
O'FARRELLY, AGNES M. W., M.A.
Italian and Spanish
DEGANI, MARIA A., DIPL. UNIV. PADUA Prof.
Latin
SEMPLE, P., M.A. Prof.
Welsh
JONES, J. L., M.A., B.LIT. Prof.

LAW, Const., and Wrongs
MC NEILL, J. G. S., M.A. OX., K.C., M.P. Prof.
Jurispr., and Internat. and Roman Law [Prof.
MURNAGHAN, J. A., M.A., LL.D., B.L.
Law of Property and of Contracts
CLERY, A. E., LL.D. Prof.
(v. also *Medicine—Hyg.*)

MATHEMATICS
M'WEENEY, H. C., M.A. Prof.
Pure Mathematics
EGAN, M. F., S.J., M.A. Lectr.
Mathematical Physics
CONWAY, A. W., M.A., D.SC. Prof.

MEDICINE and Surgery
Hygiene and Med. Jurispr.
MEENAN, J. N., M.B., D.P.H. Prof.
Mat. Med. and Therap. [Prof.
DEMPSEY, M., B.A., M.D., F.R.C.P.I.
Medicine
NIXON, SIR CHRISTOPHER J., BART., M.D., LL.D., F.R.C.P.I. Prof.
Midwifery and Gynæc.
SMITH, A., M.B., F.R.C.S.I. Prof.
Ophthalmology [Prof.
WERNER, L., B.A., M.B., F.R.C.S.I.
Pathology and Bacteriology
M'WEENEY, E. J., M.A., M.D., M.CH., M.A.O., D.P.H. Prof.
Pathology, Special
CROFTON, W. M., B.A., M.D. Lectr.
Surgery [Prof.
MC ARDLE, J. S., M.CH., F.R.C.S.I.

MUSIC
VACANT Prof.
Irish Music
VACANT Prof.

PHILOLOGY, v. *Languages*

PHILOSOPHY
Ethics and Politics
CRONIN, M., M.A., D.D. Prof.
Logic and Psychology
SHINE, J., M.A. Prof.
Metaphysics
MAGENNIS, W., M.A. Prof.

PHYSICS, Experimental
MC CLELLAND, J. A., M.A., D.SC., F.R.S. Prof.
Physics (v. also *Math. Phys.*)
DOWLING, J. J., M.A. Lectr.

PHYSIOLOGY and Histology
COLLINGWOOD, B. J., B.A., M.D. Prof.

POLITICAL ECONOMY
FINLAY, T. A., S.J., M.A. Prof.

ZOOLOGY
SIGERSON, G., M.D. Prof.

GENERAL INFORMATION

FACULTIES. Arts; Philosophy and Sociology; Celtic Studies; Law; Medicine; Science (including Technology and Agriculture); Engineering and Architecture; Commerce.

TERMS, 1913–14. Michaelmas, begins Oct. 1; Hilary, Jan. 8; Trinity, April 1.

COURSES are provided for the degrees of the N.U.I. in all Faculties. The Law School of the Coll. has, with that of Trinity Coll., been recognized officially by the Hon. Soc. of King's Inns, Dub., for the 1st year of Legal Education of the students of the Inns.

OFFICERS of the N.U.I. The first appointment of Profs. and Lectrs. was made by the Dub. Commrs. under the Irish Univs. Act, 1908. All subsequent appointments rest with the Senate of the N.U.I. Statutes provide for the superannuation of Profs. and Lectrs. at the age of 65, as in the Univ. Statutes.

SCHOLARSHIPS OPEN TO GRADUATES. Not more than 5 Scholarships of £60, tenable for 1 year in the Coll., may be offered on the B.A. and B.Sc. Honours, 3 of £30 for Med. students on the B.Sc. Honours, and 1 of £80 on the M.B., B.Ch. and B.A.O. Degree examns.

WOMEN are admitted to all the courses and are eligible for membership of the Coll. or of its Governing Body and for its offices, scholarships, &c., on the same terms as men.

RESIDENTIAL FACILITIES. Students do not reside within the Coll., but every student must enter under a Dean or Officer of Residence, who is charged with the supervision of his general conduct outside the Coll., and particularly with the supervision of the recognized lodging-houses. The list includes a lady Officer of Residence for women students. The places of residence other than lodging-houses now approved by the Coll. include—For men: University Hall, Lower Hatch Street; Houses of Residence in connexion with Castleknock, Blackrock, and Terenure Colls. For women: Loreto Hall, 77 St. Stephen's Green; St. Mary's Dominican Hall, 49 St. Stephen's Green.

The LIBRARY, which is rapidly growing, contains about 40,000 vols., and includes the late Catholic Univ. Library, about 17,000 vols., received on loan; the Zimmer Library of Celtic Lit. (Irish, Scottish, Welsh, Manx, Cornish, and Breton), some 6000 books and pamphlets; and the Library of the late Royal Univ.

MUSEUMS. The Museum of Ancient Hist. contains Greek and Roman coins and other originals, replicas, and illustrations.

The LABORATORIES include those of the late Royal Univ.

HOSPITALS. Through its Med. staff the Coll. is indirectly connected with several of the larger hospls. of Dub., but students are free to select for attendance any of those providing Clin. instruction approved by the Univ.

PUBLICATIONS. The *Calendar*, issued about Sept., price 2s.

THE YEAR 1912–13. *Benefactions Received:* The City Corporation provided for a lect'ship in Munic. Hist. and a Chair of Irish Music.

New Departments, &c. : A Chair of Music besides the Chair and Lect'ship above mentioned. *University Extension* : For the past 2 years a special summer course in Educn. has been largely attended. In Aug. 1913 it was extended by a series of lectures in Engl. Lang. and Lit., Class. and Genl. Archæol., Archit., and Geol. *Number of Students* : Undergraduates seeking Bachelor's degrees, 751 ; graduates preparing for Master's degrees and post-grad. Diplomas in Educn., 69 ; total, 820, including 165 women. Students seeking other Diplomas or professional qualifications, 58 ; other occasional students, 31. *Degrees* obtained (1912)—161 (including 56 women) ; M.A., 13 (2 women) ; B.Sc., 9 ; M.Sc., 3 ; LL.B., 2 ; LL.D., 3 ; M.B., 24 (1 woman) ; M.D., 3 ; B.E., 4.

UNIVERSITY COLLEGE, CORK

[Incorporated under the name of Queen's Coll., Cork, on Dec. 30, 1845. New Charter, changing the name, granted on Dec. 2, 1908.]

VISITOR	H.M. THE KING.
PRESIDENT	Sir BERTRAM C. A. WINDLE, M.A., D.Sc., M.D., LL.D., F.S.A., F.R.S.
REGISTRAR	J. P. MOLOHAN, M.A.
BURSAR AND SECRETARY	J. DOWNEY.
LIBRARIAN	J. FAWCETT, M.A.

PROFESSORS AND LECTURERS OF THE UNIVERSITY

ACCOUNTING
MAGENNIS, A. J., A.C.A. — Lectr.

ARCHÆOLOGY
THE PRESIDENT — Prof.
POWER, P., M.R.I.A. — Asst.

ARCHITECTURE
HILL, A., B.E., F.R.I.B.A. — Lectr.

BOTANY and Agriculture
CUMMINS, H. A., M.D., C.M.G. — Prof.

CHEMISTRY
DIXON, A. E., M.D. — Prof.

DENTAL Materia Medica
CANTILLON, E. V., M.B. — Lectr.

Dental Mechanics
SHEEDY, GEORGE, L.D.S. — Lectr.

Dental Surgery
HACKETT, J. R., M.B., L.D.S. — Lectr.

ECONOMICS and Commerce
SMIDDY, T., M.A., F.C.S. — Lectr.

EDUCATION, Methods of
O'SULLIVAN, ELIZ. M., M.A. — Lectr.

History of Education
MC SWEENEY, E. P. — Lectr.

ENGINEERING, Civil
ALEXANDER, C. W. O'D. L., M.SC., B.E., A.M.INST.C.E. — Prof.

Engineering, Electrical
BELAS, P. E., B.A., A.R.C.SC.I. Lectr.

GEOLOGY and Geography [Prof.
SWAIN, I., B.A., A.R.C.SC.I., M.R.I.A.

HISTORY
MERRIMAN, P. J., M.A. Prof.

HYGIENE, v. *Medicine*

LANGUAGES and Literature
English
STOCKLEY, W. F. P., M.A. Prof.
German
SWERTZ, MARIA W., M.A. Prof.
Greek
KEENE, C. H., M.A., M.R.I.A. Prof.
Irish Language and Literature
HENEBRY, R., PH.D. Prof.
Irish, Modern
O'DONOGHUE, E. Lectr.
Latin
MOLOHAN, J. P., M.A. Prof.
Romance Languages
RYAN, MARY, M.A. Prof.

LAW (v. also *Med. Jurispr.* and *Philos.*)
Law of Contracts, &c.
DUNLEA, W. J., LL.D. Prof.
Law of Real Property
MOLONEY, H. J. Prof.

MATHEMATICS
CONRAN, M. J., M.A., M.R.I.A. Prof.
Mathematical Physics
HARPER, E. H., M.A. Prof.

MEDICINE and Surgery (v. also *Dent.*)
Anatomy
FITZGERALD, D. P., M.B. Prof.
Hygiene [Prof.
DONOVAN, D. D., L.R.C.P. AND S.E.
Materia Medica
DUNDON, J., M.B., F.R.C.S. ENG. AND I. Prof.
Medical Jurisprudence
O'SULLIVAN, P. T., M.D., B.CH., M.R.C.P. LOND. Prof.
Medicine
CUMMINS, W. E. A., M.D., M.CH. Prof.
Mental Diseases
FITZGERALD, J. J., M.B. Lectr.
Obstetrics and Gynæcology
CORBY, H., B.A., M.D., M.CH. Prof.
Ophthalmology and Otology
SANDFORD, A. W., M.D., M.CH. Prof.
Pathology
MOORE, A. E., M.B. Prof.
Surgery
PEARSON, C. Y., M.D., M.CH., F.R.C.S. ENG. Prof.

MUSIC
LACY, F. ST. J., F.R.A.M. Prof.

PHILOSOPHY and Jurispr.
STOKES, G. J., M.A. Prof.
Philosophy
FITZGIBBON, T. E., B.A., PH.D. Prof.

PHYSICS (v. also *Mathematics*)
BERGIN, W., M.A., M.R.I.A. Prof.

PHYSIOLOGY [Prof.
BARRY, D. T., M.D., F.R.C.S. ENG.

TECHNOLOGY, Electrical
BELAS, P. E., B.A., A.R.C.SC.I. Lectr.

VETERINARY SCIENCE
HOARE, E. W., F.R.C.V.S. Lectr.

ZOOLOGY and Embryology
HARTOG, M., M.A., D.SC., F.L.S., F.R.H.S. Prof.

CHANGES IN STAFF

Anglin, A. H., M.A., LL.B., F.R.S.E., Prof. of Maths., resigned.
Conran, M. J., Prof. of Math. Physics, apptd. *vice* Anglin.
Harper, E. H., apptd. *vice* Conran.

Lawrence, G., Prof. of Law of Property, deceased.
Moloney, H. J., apptd. *vice* Lawrence.
Power, P., apptd. Lectr. in Archæol.
Lecturers in Dental Science and in Vet. Science apptd.

GENERAL INFORMATION

FACULTIES. Arts (including Sanitary and Domestic Science); Celtic Studies; Law; Med. (including Pub. Health and Dental Science); Science (including Agric.); Engin. (including Archit.); Commerce.

TERMS 1913–14 begin—Michs., Oct. 7; Hilary, Jan. 13; Trinity, April 20.

COURSES are provided leading to all the primary degrees of the N.U.I., to the M.Litt.Celt., D.Litt.Celt., LL.B. and B.Sc., Pub. Health, and to Diplomas in *Education* and *Journalism*. There are a special course for the B.A. degree in Leg. and Pol. Sc. and a special course for the B.A. and Diplomas for prospective journalists.

In *Law* students admitted at the King's Inns with a view to the Irish Bar may obtain credit for their 1st year of legal education by attending for 1 legal year in this Coll. and passing the examns. held by the Profs. there. Students attending the LL.B. degree courses for 2 years may serve for 4 instead of 5 years apprenticeship for the Certif. of the Law Professors.

In *Medicine* and *Science* the arrangements are made chiefly with reference to the requirements of the N.U.I., but it is open to students to proceed to the degrees and certifs. in Medicine, Science, and Pub. Health in the Univ. of London and to the Diplomas conferred on candidates who have passed the examns. held by the Conjoint Boards in Dub., Edin., and London. *Hospitals* in which Clinical instruction is given: General (1460 beds); Women and Children (70); Lying-in (20); Maternity; Fever; Eye, Ear, and Throat (35); Lunatic Asylum.

SCHOLARSHIPS OPEN TO GRADUATES. Scholarships are awarded on the Final examns. for the Bachelorship as follows: In Medicine, 7 of the aggregate value of £212; Engineering, 1 of £30; other Faculties, 2 of £30 each.

APPOINTMENTS. An Appointments Board has been set up for the purpose of enabling employers and past students to come into touch with one another.

WOMEN are admitted to the courses and are eligible for membership of the Coll. or of its Governing Body and for its offices, scholarships, &c., on the same terms as men.

RESIDENTIAL FACILITIES. There is no accommodation for the residence of students within the Coll., but students not living at home or with relatives or friends sanctioned by their parents or guardians are required to live in a hostel or in recognized lodgings. St. Anthony's

Hall, adjoining the Coll., is the property of and is occupied by the Franciscan Order. A number of sets of rooms, together with recreation and common rooms, are provided for lay students who may desire to live there. The Ursuline Convent, Blackrock, has a House of Residence, quite separate from their Secondary School, for Catholic women students. Girls' Friendly Society Lodge, Dyke Parade, provides for other women students. Every student must be entered under a Dean of Residence.

The LIBRARY contains about 50,000 vols., and is especially rich in Celtic books.

MUSEUMS, &c. Nat. Hist. (including a *Hortus siccus* with 60,000 named specimens and very large collection of Brit. flora in addition, and the Harvey Collection of S. Ireland Birds and Eggs and Mammals), Geol., Anat., Path., Mat. Med., Archæol., and Ethnog. Museums; Bot. Garden with Biol. Lab. and Aquarium; Chem., Histol., Pract. and Chem. Physiol., Mat. Med., Phys., Path., and Engin. Labs.; Collection of Phonograms of Irish Folk Music. The *Crawford Observatory* has an equatorial with 8″ object glass and seismograph.

PUBLICATIONS. *Calendar*, pubd. about Sept., price 1s.; *Univ. Coll., Cork, Official Gazette*, pubd. terminally and distributed free; *Handbook*, illustrated, free.

THE YEAR 1912–13. *New Department:* A School of Dentistry. *Number of Students:* 429. *Number who obtained Degrees* (in 1912): B.A., 35 (including 9 women); M.A., 2 (1 woman); B.Sc., 3; M.B., 17 (1 woman); M.D., 1; B.E., 2; M.E., 2. *Additions to Buildings, &c.:* New administrative offices; enlargement of Library and Council room; raising and draining athletic ground. *Other New Developments:* Appointments Board. *Additions to Library:* The Celtic Library of H. d'Arbois de Jubainville (12,000 vols.).

UNIVERSITY COLLEGE, GALWAY

PRESIDENT — ALEXANDER ANDERSON, M.A., D.Sc., LL.D.

REGISTRAR — Professor PYE.

PROFESSORS AND LECTURERS OF THE UNIVERSITY

ANATOMY and Physiology
PYE, J. P., M.D., M.CH., D.SC. Prof.

CHEMISTRY
SENIER, A., PH.D., D.SC., F.I.C., M.R.I.A. Prof.

ENGINEERING, Civil
RISHWORTH, F. S., B.E., B.A., A.M.I.C.E. Prof.

Electrical Engineering [Lectr.
GRIFFITH, W. G., B.SC., A.M.I.E.E.

LANGUAGES and Literature

Engl., Hist. and Mental Science

DRENNAN, MAX., M.A. Prof.

Greek

M'ELDERRY, R. K., M.A. Prof.

Irish Lang., Philol., and Lit.

O'MAILLE, T., M.A., PH.D. Prof.

Irish, Modern

HENRY, J. P., M.A., M.D. Lectr.

Latin

EXON, C., M.A. Prof.

Modern Languages

STEINBERGER, V., M.A. Prof.

LAW

Jurisprudence and Pol. Econ.

ANDERSON, JAMES, M.A., LL.B. Prof.

English Law

SWEETMAN, J. M., M.A., LL.D. Prof.

MATHEMATICS

POWER, M., M.A., B.SC. Prof.

MEDICINE and Surgery

Materia Med. and Pharmacy

COLAHAN, N. W., M.D., M.CH. Prof.

Medicine, Practice of

MAHON, R. B., M.D., M.CH., F.R.C.S. ENG. Prof.

Obstetrics and Gynæcology

KINKEAD, R. J., B.A., M.D., L.R.C.S.I. Prof.

Pathology

WALSH, T., B.A., M.D., P.D.H. Prof.

Surgery, Practice of

BRERETON, W. W., L.R.C.S.I., M.R.C.P.I. Prof.

NATURAL HISTORY, Geol. and Mineralogy

ANDERSON, R. J., M.A., M.D., M.R.C.S. Prof.

NATURAL PHILOSOPHY

ANDERSON, A., M.A., D.SC., LL.D. Prof.

CHANGES IN STAFF

Drennan, C. M., appointed *vice* Trench.
Houston, W. A., M.A., Prof. of Maths., resigned.
Lynham, J. I., M.D., Prof. of Medicine, deceased.
Mahon, R. B., apptd. *vice* Lynham.
Power, M., apptd. *vice* Houston.
Trench, W. F., M.A., Prof. of Engl. Lit., &c., apptd. Extern Examiner.

NUMBER OF STUDENTS who obtained degrees in 1912—B.A., 8 (including 4 women); M.A., 2 (women); B.Sc., 1 (woman); B.E., 10; M.E., 1.

UNIVERSITY OF KING'S COLLEGE, WINDSOR, NOVA SCOTIA

[Established by Royal Charter in 1802. Constitution modified by Acts of the Local Legislature in 1853 and 1895. Affiliated to Oxford, Cambridge, and Dublin.]

PATRON OF THE COLLEGE	His Grace the ARCHBISHOP OF CANTERBURY.
VISITOR AND PRESIDENT OF THE BOARD OF GOVERNORS	The Rt. Rev. the LORD BISHOP OF NOVA SCOTIA.
VICE-PRESIDENT OF THE BOARD	The Rt. Rev. the LORD BISHOP OF FREDERICTON.
CHANCELLOR	Chief Justice Sir CHARLES J. TOWNSHEND, D.C.L.
VICE-CHANCELLOR AND PRESIDENT OF THE COLLEGE	T. W. POWELL, M.A., D.D., D.C.L.
VICE-PRESIDENT OF THE COLLEGE	C. E. WILLETS, M.A., D.C.L.
REGISTRAR AND LIBRARIAN	Prof. F. W. VROOM, M.A., D.D., D.C.L.

PROFESSORS, LECTURERS, ETC.

CLASSICS [Prof.
THE VICE-PRESIDENT OF THE COLL.

DIVINITY [Prof.
HUNT, T. H., M.A., D.D. Alexandra
Divinity, including Pastoral Theol. [Prof.
VROOM, F. W., M.A., D.D., D.C.L.
Pastoral Theology
MARTELL, G. R., M.A., D.C.L. Lectr.

EDUCATION (*Sunday-school*)
HILTZ, R. A., M.A. Lectr.

ENGLISH LITERATURE
HARLEY, A. W. M., M.A. Prof.

LANGUAGES, Modern
BOBER, H. L., M.A., D.C.L. Prof.

LAW (*v. infra* also)
SANGSTER, H. W., M.A., LL.B. Lectr.

MATHEMATICS
WADLEY, H. W. A., M.A. Prof.

PHILOSOPHY and Ethics
THE PRESIDENT OF THE COLL. Prof.

PHYSICS and Engineering
HOWARTH, E., M.SC. Prof.

SCIENCE
MCCARTHY, J. B., B.A., M.SC. Prof.
College Tutor
WAUGH, MISS E. G. M., M.A.
Fellow
BOWMAN, C., D.D.

THE LAW FACULTY
(School of Law at St. John, New Brunswick)

Bills and Notes
KELLEY, J. K., B.C.L., K.C.
PHINNEY, J. D., M.A., K.C.

Constitutional Law
POWELL, H. A., M.A., K.C.

Contracts
MCKEOWN, HON. MR. JUSTICE, D.C.L.

Equity and Admiralty
TAYLOR, F. R., B.A., LL.B.

Evidence
HARRISON, W. H., B.A., LL.B.

Medical Jurisprudence
WALKER, T. D., B.A., M.B., C.M. EDIN.

Practice and Domestic Relations
BAXTER, J. B. M., B.C.L., K.C., RECORDER.

Procedure and Pleading
WILSON, A. A., K.C.
WALLACE, W. B., D.C.L., K.C.

Real Property
CAMPBELL, J. R., LL.B., B.C.L.

Roman and Common Law
ALWARD, S., M.A., D.C.L., K.C., DEAN

Torts
KNOWLES, E. T. C., K.C.

Wills and Executors
ARMSTRONG, J. R., K.C., JUDGE OF PROBATE

The President of the College is *ex officio* a member of the Faculty.

GENERAL INFORMATION

While King's is essentially a Church College, it welcomes students of all denominations. All students in residence are expected to attend the daily services in the College Chapel.

DEPARTMENTS. The courses are organized in 4 schools—Arts; Science; Divinity; Law. The Law School was established in St. John, N.B., in 1892.

ADMISSION. The minimum age is 16.

TERMS, 1913–14. Michaelmas, Sept. 24 to Dec. 22; Lent, Jan. 7 to May 14.

DEGREES, &c. B.A., M.A.; B.Sc., M.Sc., D.Sc.; B.D., D.D.; B.C.L., D.C.L.; the title of Licentiate in Sacred Theology.

ARTS. Candidates for the B.A. degree must ordinarily have resided at least 4 years in the Coll. and must have taken successfully some regular course of study as set forth in the *Calendar*. Admission to the 2nd year of the ordinary 4 years course is granted to students sufficiently advanced at entrance. Students who produce evidence of having successfully pursued, during 2 years residence at King's or some other recognized Coll., some regular course of study, equivalent to the requirements of the first 2 years in Arts at King's, may proceed with the work of the 3rd and 4th years, residing for such time as will make up a total of 4 years residence. Law may be taken in the 3rd and 4th years.

SCIENCE. The full course covers 4 years, but the 4th is intended only for those desiring to take the B.A. degree. When a student has completed the 3 years course at King's he may proceed to the Provincial Tech. Coll. in Halifax and complete his course in 2 years for the B.Sc. in Civil, Mech., Elec., or Mining Engin. The degree may be taken there or at King's. *See also* Appendix VI.

DIVINITY. The course for the Divinity Testamur—equivalent to the 1st B.D. examn.—covers 4 years, but the first 2 years parts may be taken in one in certain cases. Undergraduates in Arts who have matriculated in Greek may take the 1st and 2nd years of the Div. course concurrently with the 3rd and 4th of the Arts course, completing the Div. course after graduation in Arts. Those taking Honours in Div. in the Arts examn. may complete the Div. course in one year after graduation. In order to obtain the B.D. degree candidates must (1) pass a further—2nd B.D.—examn. and (2) be graduates in Arts of 3 years standing. Under provisions of Canon X of the General Synod (*v.* Appendix VI), this second requirement may in certain cases be relaxed. The L.S.T. may be obtained by passing the 1st year Arts examn. and completing the Div. course.

Residence at the Jamaica Church Theol. Coll. is accepted in lieu of residence at King's both for the L.S.T. and for the B.A., but does not excuse from the regular examns.

LAW. Candidates for the B.C.L. degree must, as a rule, be matriculated students in Arts of King's Coll. and pass 3 examns. These are ordinarily separated by intervals of not less than a year, but the Final examn. may be taken without attending the lectures of the 3rd year by a student who has attended the lectures and passed the examns. of the first 2 years. The D.C.L. degree is open only to Bachelors of 5 years standing. A thesis is required. Graduates in Arts who have attended lectures during their Coll. course in Const. Hist., Contracts, Torts, and Crimes, and, having passed in those subjects, are admitted to 2nd year standing in the Law School of Dalhousie Coll., Halifax, N.S., can graduate in 2 years from their entry into that Law School. The Law School of King's being in N.B., where the Statutes and Practice are somewhat different from those of N.S., it is usually more convenient for men who intend to practise in N.S. to go to Halifax rather than to St. John.

WOMEN are admitted as students on the same terms as men.

RESIDENTIAL FACILITIES. There is accommodation for men in the Coll. Women reside in boarding houses approved by the President.

PUBLICATIONS. The *Calendar*, issued in May ; *King's Coll. Record*, monthly during the academic year.

THE YEAR 1912–13

In Aug. 1912 the Govr.-Genl. (the Duke of Connaught) visited the Coll. and accepted the Honorary Degree of D.C.L. and received an address. Lord Milner visited the Coll. and addressed the students at the beginning of the Michaelmas term.

Number of Students in 1913. In Arts and Science, 62 (including 5 women); Law, 17; occasional, 4. *Honorary Degrees* conferred in 1912–13: D.D.—Very Rev. H. P. A. Abbott, Dean of Niagara; D.C.L., 5. *Other Degrees:* M.A., 3; B.A., 6; B.C.L., 5. *Additions to Buildings.* A wing containing Engin. workshop, Chem. and Phys. Labs. and Lecture rooms and rooms for a Prof. and 20 students was added to the Coll.

LAVAL UNIVERSITY, QUEBEC AND MONTREAL

[Incorporated by Royal Charter Dec. 8, 1852. The Montreal branch, formed in 1876, has become practically independent. It receives its degrees from the Univ. Council of Quebec, but possesses a complete local administration.]

VISITOR AND CHANCELLOR APOSTOLIC	S.G. Mgr. L. N. BÉGIN, Archbishop of Quebec.
VICE-CHANCELLOR APOSTOLIC	S.G. Mgr. P. L. N. BRUCHESI, Archbishop of Montreal.
RECTOR	Mgr. A. E. GOSSELIN, Supr. du Séminaire de Quebec.
VICE-RECTOR	G. DAUTH, Chanoine.
SECRETARY OF THE UNIVERSITY AND MODERATOR	PH. J. FILLION, M.-ès-A.
SECRETARY AT MONTREAL	J. L. DESJARDINS, Abbé, D.Th.

*PROFESSORS, LECTURERS, ETC., AT QUEBEC

ANATOMY, v. *Med. and Surg.*

ARCHÆOLOGY, Canadian
DIONNE, N. E., D.-ÈS-L., F.R.S. CAN. Prof.

ASTRONOMY
SIMARD, H., M.-ÈS-A., D.TH. Prof

Practical Astronomy
SMITH, A., TRIG. SURVEYOR Prof.

BIOLOGY, v. *Natural History.*

CHEMISTRY
FILLION, PH. J., M.-ÈS-A., M.SOC.C. PARIS Prof.

Analytical Chemistry
GARNEAU, SIR GEORGES, B.-ÈS-SC. AP., ING.CIV., K.C.M.G. Prof.

COMMERCE, v. *Law* and *Pol. Econ.*

ELOCUTION [Prof.
RIVARD, A., K.C., M.-ÈS-A., B.-EN-DR., D.-ÈS-L., M.R.S. CAN.

FORESTRY
PICHÉ, G. C., ING.FOR. Prof.
BÉDARD, A., ING.FOR. Prof.

HISTOLOGY and Bacteriology
HAMEL, A. C., M.D. Prof.

* Professors are distinguished as Titulaires (ordinaires or extraordinaires), Agrégés, and Chargés des Cours. Titulaires ordinaires alone can be members of the Univ. Council. A Titulaire in one faculty cannot be Titulaire in another, but can be Agrégé or Chargé du Cours. In this list the letters (A) and (C) are used to distinguish Agrégés and Chargés from Titulaires. (S) = Suppléant = gives courses in the absence of the Prof. Titulaire. M.D. = D.-en-M. : *cf.* p. 208.

HISTORY (v. also *Law—Rom.* and *Theol.—Eccl. H.*)

CHAPAIS, HON. T., D.-ÈS-L., C.L.D'H., M.R.S. CAN. Prof.

History of Canada

THE RECTOR Prof.

Universal History

PARÉ, A. J. V., B.-ÈS-A. Prof.

HYGIENE, Public

PAQUIN, R., M.D. Prof.

(v. also *Med. and Surg.—Anat., Ped.*)

LANGUAGES and Literature

French Literature [Prof.

ROY, C., L.-ÈS-L., D.PH., M.R.S. CAN.

Greek Literature

PELLETIER, F., M.-ÈS-A. Prof.

Latin Literature

HÉBERT, P., M.-ÈS-A. Prof.

(v. also *Theol.—Holy Script.*)

LAW

Administrative Law

SIROIS, L. P., D.-EN-DR. Prof. (and (C) of *Notarial Practice*).

Administr. and Const. Law

SIROIS, J., D.-EN-DR. Prof. (A) & (C).

Civil Law [Prof.

DORION, HON. C. E., K.C., D.-EN-DR., J. OF THE SUPERIOR COURT

Commerc. & Marit. Law [Prof.

BERNIER, L. M. J. A., K.C., D.-EN-DR.

Criminal Law

ROY, F., K.C., D.-EN-DR. Prof.

International Law

ROUTHIER, HON. SIR ADOLPHE B., G.C. ST. GR., K.M.G., D.-EN-DR. ET ÈS-L., M.R.S. CAN. Prof.

Procedure, Civil

POULIOT, A., D.-EN-DR. Prof.

Procedure, Practical [Prof. (C).

PROF. PELLETIER (v. *Pol. Econ.*)

Roman Law [Prof.

FLYNN, HON. E. J., K.C., D.-EN-DR.

Roman Law and Hist. of Law

BELLEAU, E., K.C., D.-EN-DR. Prof. (C).

(v. also *Med. Toxic., Pol. Econ.*)

MEDICINE and Surgery

Anatomy, Descr. & Ext. Clinic

AHERN, M. J., M.D. Prof.

Anatomy, Pathological

VALLÉE, A., M.D. (Dir. of P.A. Labs.). Prof. (and (C) of *Pract. Bact.* and *Physiol. Chem.*).

Anat. and Oper. Med., Pract.

SIMARD, E. T. A., M.D. Prof. (and (C) of *Ext. Path.* and *Surg. Clin.*).

PAQUET, A., M.D. Prof.

Dermatology

MAYRAND, R., M.D. Prof.

Gynæcology and Gyn. Clin.

GRONDIN, S., M.D., C.L.D'H. Prof.

Hist. of Med. and Descr. Anat.

DAGNEAU, C., M.D. Prof.

Laryngology

FISET, L. J. N., M.D. Prof.

Laryng., Rhin., Ophth. and Otology and Rhino-Laryng. Clinic

DUSSAULT, N. A., M.D. Prof. (and (C) of *Dis. of Eye and Ear*).

Materia Medica

FAUCHER, P. V., M.D. Prof.

M.M. and Pract. Pharm., &c.

TURCOT, E., M.D. Prof.

M.M. and Therapeutics

LECLERC, O., M.D. Prof. (C).

Ophthalmology

PAGÉ, J. D., M.D. Prof.

Ophth. and Ot. Clin., &c.

COOTE, P., M.D., M.SOC.OPHTH. OF PARIS AND OF U.K. Prof.

Path., Genl., and Int. Clin.

ROUSSEAU, A., M.D., O.A. Prof.

Path., Int., Nerv. Dis., &c.

BROCHU, M. D., M.D. Prof.

Path., Internal

GUERARD, J., M.D. Prof.

Pediatrics, Hygiene, &c.

FORTIER, E. R., M.D. Prof.

Toxicol., Leg. Med., and Ext. Clin.
MAROIS, A., M.D. Prof.
(v. also *Histol., Physiol.*)

NATURAL HISTORY
GUIMONT, R., L.PH., D.-EN-DR. CAN., M.-ÈS-A. Prof.

PHILOSOPHY
ROBERT, A., B.-ÈS-A., D.TH., D.PH., D.ST.T., L.-EN-SC. POL., ETC., LOUV. Prof.
GAGNON, C., B.-ÈS-A., D.TH. *Prof. (C).

PHYSICS
VACANT Prof.
THE PROF. OF *Astronomy* Prof. (C).

PHYSIOL., Genl. and Comp., and Med. Clin.
MATHIEU, E., M.D. Prof.

POLITICAL ECONOMY
Comml. Policy & Customs Laws
PELLETIER, HON. L. P., K.C., D.-EN-DR. †Prof.
Political and Social Econ.
PRINCE, J. E., K.C., D.-EN-DR. †Prof.

SURVEYING and Topography
GASTONGUAY, J. N., TRIG. SURVEYOR, ING.CIV. Prof.

THEOLOGY
Canon Law
GIGNAC, J., B.-ÈS-L., D.TH., D.DR. CAN. Prof.
Dogmatic Theology [Prof.
BEAULIEU, C., B.-ÈS-A., D.TH., L.-EN-ÉCR.STE. ET EN-DR.CAN.
PAQUET, MGR. L. A., V.G., B.-ÈS-A., D.TH., M.ST.T., M.R.S.CAN. Prof.
(and Prof. (A) of *Chr. Apol.*).
LANGLOIS, J. A., B.-ÈS-A., D.TH., D.PH. Prof.
Ecclesiastical History
GARNEAU, P. B. Prof.
Holy Script. and Oriental Langs.
GRANDBOIS, J. E., B.-ÈS-A., L.-EN-TH., D.TH. Prof.
Moral Theology
NADEAU, E., B.-ÈS-A., D.TH., L.-EN-DR.CAN. Prof.
GARIEPY, C.N., B.-ÈS-A., D.TH. Prof.

‡PROFESSORS, LECTURERS, ETC., AT MONTREAL

ANATOMY (v. also *Med.—Path.*).
MIGNAULT, L. D., M.D., M.CH. Prof.
VIROLLE, E., M.D. (S).
DELORME, L. N., M.D. Prof. of *Pract. Anat.*
MOREAU, G. T., M.D. Demr.
DEL VECCHIO, P. Asst. Demr.
DEMERS, A. Asst. Demr.
DUFRESNE, E. Asst. Demr.
ROBICHON, A. Asst. Demr.
SAINT-PIERRE, C. Asst. Demr.
TESSIER, A. D. Asst. Demr.

ARCHITECTURE, v. *Ecole Polyt.*, p. 209.

ART
LAGACE, J. B. Prof.

ASTRONOMY
VOLBART, A., P.S.S., B.-ÈS-SC., L.-ÈS-L. Prof.

CHEMISTRY, Practical
BARIL, G. H., M.D. Prof. (C).

COMMERCE, v. *Law—Comml.*

DENTISTRY, v. *Ec. de Ch. D.*, p. 210.

* In the Faculty of Theol.
† In the Faculty of Law.
‡ (A) Agrégé, (C) Chargé du Cours, (S) Suppléant au Cours (*see* footnote on p. 200).

ECONOMICS, Industrial (v. also *Pol. Econ.*)
MARCEAU, E., PRINCIPAL, ÉCOLE POLYT. Prof.

ELOCUTION (v. also *Oratory*)
WIALLARD, P. Prof.

ENGINEERING, v. *Ec. Polyt.*, p. 209.

HISTOLOGY
BOUCHER, S., M.D. Prof.
GAGNON, E., M.D. Asst.
ARCHAMBEAULT, G. Demr.
CLEROUX, V. Demr.

HISTORY OF CANADA
HÉBERT, E., M.-ÈS-A. Prof.

HYGIENE, v. *Med. and Surg.*

LANGUAGES and Literature
French Literature
GAUTHERON, R. Prof.
History of French Lit. [Prof.
FOURNET, ABBÉ P. A., P.S.S., B.-ÈS-L.
Greek [Prof.
LALIBERTÉ, J. F., P.S.S., M.-ÈS-A.
Hebrew, v. *Theol.*

LAW (v. also *Med.—Leg.*)
Administrative Law
MORIN, V., D.DR. Prof.
Civil Law [Prof.
MATHIEU, HON. JUDGE M., D.DR.
Commercial, Financial, and Industrial Legislation [Prof.
ARCHAMBAULT, HON. H., D.DR., C.J. OF CT. OF KING'S BENCH
Comml. and Marit. Law
PERRAULT, A., L.DR. Prof.
Const. and Municipal Law
COUSINEAU, P., D.DR. Prof.
Criminal Law
MORIN, L. J. S., D.DR. Prof.
History of Law
TASCHEREAU, R., K.C., D.DR. Prof.
Internat. Law and Civ. Proc.
GERVAIS, HON. H., D.DR., C.L.D'H., J. OF CT. OF KING'S BENCH Prof.
Notarial Procedure
PERODEAU, HON. N., D.DR. Prof.
Roman Law
LAFONTAINE, E., D.DR., J. OF THE SUPERIOR CT. Prof.

MEDICINE and Surgery (v. also *Physiol.*)
Bacteriology
BERNIER, A., M.D. Prof.
JEANNOTTE, A. F., M.D. (S).
AUBREY, H., M.D. Asst. au Cours.
DESPATIS, R. Demr.
DUPUY, E. Demr.
Contagious Diseases
LEDUC, J., M.D. Prof. (C).
Dermatology, Syph. and
DÉCARIE, J. P., M.D. Prof.
Gynæcology
HARWOOD, L. DE L., M.D. Prof.
ETHIER, A., M.D. (S) et à la *Clin.*
TRUDEAU, J. M. R., M.D. Asst. à la *Clin.*
History of Med., Hygiene, &c.
PERSILLIER-LA CHAPELLE, E., M.D., C.L.D'H. Prof.
VALIN, C. N., M.D. (S) in *Hygiene.*
LEMIEUX, L. J., M.D. (S) in *Hist. of Med.*
Legal Medicine
DEROME, G. W., M.D. Prof.
Materia Med. and Therap.
FORTIER, L. E., M.D. Prof.
BOURGOIN, J., M.D. (S).
MIGNAULT, G. E., M.D. Asst.
Medicine, Clinical
GUÉRIN, J. J., M.D., M.CH. Prof.
CLEROUX, L. J. V., M.D. Jt. Prof.
BENOIT, E. P., M.D. Prof.
BRUNEAU, T., M.D. Asst.
GAUTHIER, J. D., M.D. Asst.
LEBEL, H., M.D. Asst.
MERCIER, A., M.D. Asst.
VERNER, L., M.D. Asst.

Mental and Nervous Diseases
VILLENEUVE, G., M.D., MED. SUPT. ASILE DE S. JEAN Prof.
CHAGNON, E. P., M.D. *Clin.* Asst.
TETREAULT, A., M.D. ,,
DE BELLEFEUILLE, G. L., M.D. ,,

Obstetrics and Obst. Clin.
DE COTRET, E. A. R., M.D. Prof.
LANGEVIN, S., M.D. Asst.

Ophth., Ot. and Rhino-Laryng.
FOUCHER, A. A., M.D. Prof.
BOULET, R., M.D. (S).

Path. Anatomy
LATREILLE, E., M.D. Prof. (C).

Pathology, External
PARIZEAU, T., M.D. Prof.
BOURGEOIS, B., M.D. (S).

Pathology, Internal
LESAGE, A., M.D. Prof.

Pediatrics
MASSON, R., M.D. (S).
RICARD, A., M.D. Asst.
CORMIER, J., M.D. (S) *Children's Clin.*

Pharmacy, Practical
LAURENCE, A. J., L.PHM. Prof. (C).

Phthisiotherapy
DUBÉ, J. E., M.D. Prof.

Propedeutics
HEBERT, R., M.D. Prof.

Surgery, Clinical
MERCIER, O. F., M.D. Prof.
MARIEN, P. A., M.D. Prof.
SAINT-JACQUES, E., M.D. Jt. Prof.
HINGSTON, D., M.D. Asst.
RHEAUME, Z., M.D. Asst.
SAINT-PIERRE, A., M.D. Asst.

Toxicology
RIVET, A. N., M.D. Prof.

ORATORY (v. also *Elocution*)
JASMIN, L. A., D.TH., D.DR. CAN. Prof.

PHILOSOPHY
PERRIN, ABBÉ E. L., P.S.S., D.PH., D.TH., D.DR.CAN. Prof.
AUCLAIR, ABBÉ E. J., B.-ÈS-A., D.TH., D.DR.CAN. Prof.

History of Philos. [Prof.
DAUTH, ABBÉ G., B.-ÈS-A., D.TH.

Natural Law
CUROTTE, ABBÉ A., D.PH., D.TH., D.-EN-DR.CAN. Prof.

PHYSICS [Prof.
CHOQUETTE, MGR. P., M.-ÈS-A., L.SC.

PHYSIOLOGY, External
ASSELIN, E., M.D. Prof.

Physiol. and Med. Electricity
DUVAL, S., M.D. Prof.

POLITICAL ECONOMY
JETTE, SIR LOUIS A., D.DR. Prof.

Social and Pol. Econ. [Prof.
MONTPETIT, E., L.DR., LAUR.SC.POL. ET DIP. COLL. SC. SOC. PARIS

THEOLOGY

Christian Apologetics
NANTEL, ABBÉ A., D.-ÈS-L. Prof.

Dogmatic Theol., Hist., Preaching, &c. [Prof.
GARROUTEIGT, J. J. H., P.S.S., D.TH.

Dogmatic Theology
GOUIN, E. M., P.S.S. Prof.
PASQUIER, A., P.S.S. Prof.

Ecclesiastical History
NEVEU, R., P.S.S., D.TH. Prof.
RACICOT, S.G.MGR. Z., BISHOP OF POGLA *Prof.
DESJARDINS, ABBÉ J. L., D.TH., B.-ÈS-A. *Prof.

Hebrew
MANY, N. V., P.S.S., D.TH. Prof.

Hebrew and Holy Scripture
GATTET, B. M., P.S.S. Prof.

Holy Scripture and French
JASMIN, H. L., D.TH., D.PH., L.-EN-ÉCR.STE. Prof.

Holy Script., Liturgy, and French
FRANÇOIS, L. J., P.S.S., D.TH. Prof.

Liturgy and History
DUCHEIN, F., P.S.S., D.TH. Prof.

* In the Faculty of Arts.

Moral Theol., Can. Law and Hebrew
DORVAUX, J. E., P.S.S., D.TH., D.DR. CAN. Prof.

Moral Theol., Can. Law, and Preaching
LABROSSE, J. M. E., P.S.S., D.TH. Prof.

Moral Theol. and Can. Law
BERGER, G., P.S.S. Prof.

Pastoral Theology [Prof.
LELANDAIS, F. L., P.S.S., D.TH.

Public Law of the Church [*Prof.
PERRIER, P., D.TH., D.DR.CAN.

VETERINARY Sc., v. p. 209.

At the Ecole Polytechnique de Montreal the following subjects are in the charge of Profs. of the Univ. : *Archit. and Construction, Astron. and Geod., Chem. (Genl., Analyt., and Industr.), Cosmography, Drawing and Modelling, Electricity, Electro-technics and Mechanics, Geol., Descriptive Geom., Heating and Ventilation, Hydraulics, Hygiene, Materials (Resistance of), Maths., Mineralogy, Mines and Metall., Railway Management, Thermodynamics and Steam-engines, Topog. and Surveying.*

At the Ecole de Chirurgie Dentaire instruction is given in *Anæsthetics, Anat. (Genl.), Auscultation, Bact. and Hyg., Histol., Mat. Med. and Therap., Oper. Dent., Bridge Work, Porcelain and Technique, Orthodontia, Phys. and Chem., Prosthetics, Metall., Anat. and Physiol.*

CHANGES IN STAFF

Archambault, Mgr. A., deceased.
Archambault, Hon. H., apptd. Prof. of Comml., &c., Legislation.
Décarie, J. P., apptd. Prof. of Syphiligraphy and Dermatology.
Derome, G. W., apptd. Prof. of Leg. Med. *vice* Villeneuve, who retains the Chair of Mental Diseases.
Dubé, J. E., apptd. Prof. of Phthisiotherapy.
Gautheron, R., apptd. Prof. of French Lit. *vice* du Roure.
Hamel, Mgr. T. E., Prof. of Phys. at Quebec, deceased.
Hervieux, H., M.D., Prof. of Path. Int., deceased.
Lachapelle, S., M.D., Prof. of Pediatrics, deceased.
Leblanc, L. J. B., Hon. Prof., deceased.
Lesage, A., M.D., apptd. *vice* Hervieux.
Perrault, A., apptd. Prof. of Comml. and Marit. Law.
Villeneuve, G., Prof. of Leg. Med. and Ment. Dis. (*see* Derome).

GENERAL INFORMATION

A general supervision of teaching and discipline is exercised by the Archbishops of Quebec and of Montreal, the former as Visitor and Chancellor Apostolic and President of the Conseil Supérieur of Archbishops and Bishops of the Province of Quebec, and the latter as Vice-Chancellor. At Quebec the Profs. of the Faculty of Theology are nominated by the Visitor, those of other Faculties by the Conseil de l'Université, composed of the Directors of the Seminary of Quebec

* In the Faculty of Arts.

and 3 Senior Profs. (titulaires ordinaires) of each Faculty. At Montreal the Faculty of Theology is constituted by the Grand Seminary of St. Sulpice, the Profs. being nominated by the Superior of the Seminary subject to the approval of the Vice-Chancellor, who also controls the nomination of the other Profs. and is President of the Corporation of Administrators. This body includes the Suffragan Bishops of the Ecclesiastical Province of Montreal, delegates of all the affiliated Colleges and petits-séminaires of the same province, and delegates of the Faculties and of graduates. The Superior of the Seminary of Quebec is *ex-officio* Rector of the Univ. An ecclesiastical Vice-Rector, chosen by the Bishops of Montreal, represents for discipline and general administration the Univ. Council.

Faculties. Arts ; Theology ; Law ; Medicine. Annexed to the Faculty of Arts at Quebec are the Ecole d'Arpentage and Ecole Forestière (Univ. Schools of Surveying and Forestry), and at Montreal is the Ecole Polytechnique (Faculty of Applied Science). The Ecole de Médecine Comparée et de Science Vétérinaire at Montreal is associated with the Univ. though under the control of the Minister of Agric. of the Govt. of Quebec. Affiliated to the Univ. are the Schools of Dental Surgery and of Pharmacy, the Agric. Institute of Oka, the Ecole d'Enseignement Supérieur pour les Jeunes Filles, and other institutions specified in the list at the end of this section.

Terms, 1913–14. The first is from the beginning of Sept. to Christmas ; the 2nd from Jan. 7 to Easter ; the 3rd from April 20 to the end of June. In the Faculty of Law the 2nd term begins Jan. 7 and lasts until about the end of May, and there is no 3rd term.

Degrees and Diplomas. The Univ. perpetuates the stages by which a degree was, and still is, reached in the Univ. of Paris. The Baccalauréat is not a degree, but the recognition of the attainment by the student of a standard of general education which fits him to commence his professional studies. It is obtained before the student leaves the particular Institute, Seminary, or College affiliated with the Univ. at which he has received his schooling. At the end of a period of instruction varying in the several Faculties from 2 to 5 years the student is eligible for the "Licence" and his degree (the Doctorate), which are granted as the result of an examn. partly written and partly oral. In Theology and Law he may obtain the Doctorate a year after being "licensed" if he supports successfully in public a thesis and certain propositions as in other French Univs. Degrees, &c., conferred by the Univ. include :

Arts—B.-ès-A., M.-ès-A. (Honorary) ; Lettres—B., L., and D.-ès-L. ; Sciences—B., L., and D.-ès-Sc. ; Philosophie—L. and D.-en-Ph. ; Sciences Morales et Politiques—D.-ès-Sc.Mor. et Pol. ; Théologie—B., L., and D.-en-Th. ; Droit—B., L., and D.-en-Dr. ; Droit Canonique—B., L., and D.-en-Dr.Can.; Médecine—B., L., and D.-en-M.; Méd.Vét.—B. and D.-en-M.V. ; Chirurgie Dent.—B. and D.-en-Ch.D. (or D.D.S.);

Hygiène—Diplôme de Méd. Hyg. ; Pharmacie—B., L., and D.-en-Phm.; Arts Appliqués—B.-ès-A.A. ; Sciences Appliquées—B.-ès-Sc.A. ; Agriculture—B.-en-Agr., D.-en-Sc.Agr. ; Architecture—B.A.A. ; Ingénieur Civil ; Ing. Civ. et Chim. ; Ing. des Chem. de Fer ; Ing. For. ; Ing. des Mines ; Arpenteur Stagiaire ; Dipl. d'Enseignement Ménager ; Certificats d'études.

Studies. Profs. examine students once a week. At the end of each term all students are examined orally before juries, each consisting of 3 Profs. Those who fail to satisfy the examiners have to repeat the term. Instruction is given in the French language except in the Faculty of Theology, in which it is given in Latin, and in the Ecole d'Enseignement Supérieur pour les Jeunes Filles, which has one wholly English section.

Arts. Courses provided by the affiliated institns. lead to the Univ. examns. in (1) Lettres, (2) Sciences, for the Inscription and Baccalauréat. "Inscription" corresponds with Matricn. in English Univs. The course preparatory to the examn. in Lettres covers 4 years and is followed by a 2 years course in Sciences. There are not separate examns. for Inscription and Baccalauréat, but candidates who reach a certain standard in both Lettres and Sciences are granted the B.A. ; those who reach this standard in Lettres and a certain lower standard in Sciences the B.L. ; those who reach the higher standard in Sciences and the lower in Lettres the B.Sc.; and those who reach only the lower in both (said to be equivalent to the Matricn. of English Univs.) are Inscrits. Two years after obtaining the B.A. a student may take (in his College) the examn. for the Licence in Philos. Courses for the Licences and Doctorat ès-Lettres and ès-Sciences and the M.A. are not organized, as there is no demand for them. The M.A. is granted without examn. to incumbents of certain posts in affiliated Colleges of 8 years standing.

Courses are provided by the Faculty in Quebec in all the subjects of the second examn. for Inscription and B.A. They are attended by the pupils of the Petit-Séminaire and by Law, Medical, Pharmacy, Engineering, and other students. Evening courses, open to the public, are also provided at Quebec.

At Montreal the Profs. of the Faculty provide 3 courses, namely, in French Literature ; in Public Law of the Church ; and in Æsthetics and the History of Art. Other Profs. are in charge of regular courses in the affiliated Colleges or are called occasionally to give public lectures in the Univ. The Faculty also controls the classical education in the Ecole d'Enseignement Supérieur des Jeunes Filles and has organized in certain Brotherhoods a Univ. course modelled on modern French secondary education.

Theology. The course for the B.-en-Th. covers 2 years, for the Licence 3 years, and for the Doctorat 4 years. The first 2 years may be spent at the Univ. or in an affiliated Grand Seminary. The tests are conducted in Latin. Provision is made for the admission of

students of institutions other than pupils of an affiliated Grand Seminary subject to passing supplementary examns., but those who only enter in the 3rd year cannot take the Licence until the 1st term of the 4th. Some after taking the Licence stay for the Doctorat, but more go for further study to Rome, where the priests of the Seminary of St. Sulpice have opened a College for Canadian students. The tests for the Doctorat include a public oral examn. lasting at least an hour and a half.

LAW. The courses for the B.-en-Dr. and L.-en-Dr. (or maîtrise) cover 3 years. There is one examn. for both, students passing by a higher standard being awarded the Licence and those passing by a lower the B.-en-Dr. The Doctorat may be taken 3 years later, or if a certain standard of proficiency in the Licence examns. was reached, 1 year later.

MEDICINE. The complete course formerly lasted only 4 years, but since Jan. 1909 has, in accordance with the regns. of the Quebec Provincial Coll. of Phys. and Surgns., been framed so as to cover 5 years. The Baccalauréat, however, may be taken on the completion of 2 years. The Doctorat gives admission to the examn. for the Diploma of M.R.C.S. Lond. Inscription in Arts is recognized as corresponding to the Prelim. examn. of the R.C.S. Lond.

HYGIENE. The examns. for the Dipl. of Hygiéniste expert may be taken by a D.-en-M. after a 6 mos. course including practical work.

Particulars concerning other courses will be found under the headings of the several professional schools.

RESIDENTIAL FACILITIES. The Univ. has no hostels. Students not residing with relations occupy lodgings subject to approval by the Rector.

LIBRARIES. At Quebec about 125,000 vols. (*Librarians*— P. B. Garneau and E. Nadeau, Profs. in the Faculty of Theology). At Montreal about 120,000 vols., besides departmental libraries.

MUSEUMS, &c. At Quebec—Physical Lab. (1000 instruments); Chemical Labs. (Lavoisier General and Sterry Hunt Special Research and Analytical); Mineralogy (6000 specimens); Geol. (3000 specimens, including 400 named fossils of Niagara formation); Bot. (Herbarium 10,000); Zool. (Ornith. 700 species, insects 14,000 named, conch. 3000. *Curator*—C. E. Dionne, M.-ès-A.); Ethnol. (American, Indian, Chinese, and Jap. collections); Religious; Paintings; Numismatics (7000 specimens. *Curator*—A. Aubert, B.-ès-A.). At Montreal—Laboratories, Medical, Electro-therapy, Bact., Histol., Chem., &c. Also the Polyt., the Ecole de Méd. Comp. et Sc. Vét., and the Ecole de Ch. Dent. have Pathol. Museums and Bact. and Chem. Labs. Each Faculty and School has the necessary teaching collections and Labs.

PUBLICATIONS. *Annuaire* (*Calendar*). pubd. in July at Quebec and Montreal separately; *Le Bulletin* of the Polyt., $3 p.a.; *Le*

Journal de Médecine et de Chirurgie, $1 p.a.; *L'Union Médicale*, $2.50 p.a.; *La Revue Canadienne*, a monthly directed by a group of Profs. of the Univ., $3 p.a.; *Account of Congress of Univs.*, 1912.

INSTITUTIONS ANNEXED TO, ASSOCIATED WITH, AND AFFILIATED TO THE UNIVERSITY

ECOLE D'ARPENTAGE, QUEBEC. Founded by Govt. and annexed to the Faculty of Arts. The courses are—(1) a 2 years course preparatory for admission to the study of Surveying, Archit., and Forestry, to the Montreal Ecole Polyt. and the Engin. Schools of McGill Univ. and the Milit. Coll. of Kingston, and to the examns. of the Soc. of Civil Engineers of Canada; minimum age for admission, 17; (2) a 3 years course leading to the Bachelorship in Surveying. *Director of Studies*—J. N. Gastonguay, Univ. Prof. of Surveying and Topog. in the Faculty of Arts. The staff includes the Univ. Profs. of Astron. and Nat. Hist.

ECOLE FORESTIÈRE, QUEBEC. Founded by Govt. and annexed to the Faculty of Arts. Located in the Univ. Building. The course extends over 3 years and leads to the Univ. Diploma of Forest Engineer. Min. age for admission, 18. *Director of Studies*—G. C. Piché, Univ. Prof. of Forestry in the Faculty of Arts. The staff includes the Univ. Profs. of Forestry and Nat. Hist.

ECOLE POLYTECHNIQUE, MONTREAL. Annexed to the Faculty of Arts. Subsidized by the Provincial Govt. of Quebec and by the principal railways of the Dominion. It has two divisions—Engin. and Archit., and provides courses extending over 4 years and leading to the B.-ès-Sc.Ap. The Engin. division provides training for Civ., Chem. and Industrial, Elec., Hydraulic, Mech., Metall., and Mining Engineers. The other prepares for the Dip. of Architect. *Principal*—E. Marceau, Univ. Prof. of Industrial Econ. in the Faculty of Arts. *Director of Studies, Secy., and Prof. of Maths*—A. Fyen.

ECOLE DE MÉDECINE COMPARÉE ET DE SCIENCE VÉTÉRINAIRE, MONTREAL. Associated with the Univ. Under the control of and subject to inspection by the Minister of Agric. of the Govt. of Quebec. Provides a 3 years course leading to the D.-en-M.V. The B.-en-M.V. may be taken at the end of the 2nd year. *President*—E. Persillier-La Chapelle, D.-en-M., Chev. Lég. d'Hon., Dean and Prof. of Hygiene, &c., of the Faculty of Med. in the Univ., Prof. of Vet. Legal Med. *Director and Secy.*—F. T. Daubigny, Prof. of Anat. and of Oper. Surg., Chargé du Cours of Clin. Med. and Special Pathol. *Jt. Secy.*—E. P. Benoit, D.-en-M., Prof. of Clin. Med. in the Faculty of Med., Prof. Agrégé of Mat. Med. *Administrator*—A. Dauth, M.V., Prof. of Genl. Pathol., Chargé du Cours of Contag. Dis., Histol., Meat Inspection, and Bact.

Ecole de Chirurgie Dentaire, Montreal. Affiliated to the Univ. Provides courses extending over 4 years leading to the B.C.D. (after 2 years) and to the Doctorate. *President and Director*—E. Dubeau, D. et L.-en-Ch.D., Prof. of Dent. Pathol. and Buccal Surg. *Vice-President and Registrar*—J. Nolin, D. et L.-en-Ch.D., Prof. of Oper. Dentistry, Bridge and Porcelain Work, Chief Demr. at the Clin. *Secy. and Treasr.*—J. G. A. Gendreau, D. et L.-en-Ch.D., Prof. of Dent. Prosth., Metall., Anat. and Physiol.

Ecole de Pharmacie Laval, Montreal. Affiliated to the Univ. Qualifies for the examns. of the Pharmaceutical Assocn. Provides courses extending over 4 years leading to the B.-en-Ph. and D.-en-Ph. *President*—J. Contant, Pharmacien, Prof. of Deontology and Pharm. Jurispr. *Vice-President*—J. E. W. Lecours, Pharmacien, Prof. of Mat. Med. and Pharmacy. *Secy.-Director*—A. J. Laurence, Pharmacien, Prof. in the Faculty of Medicine of Pract. Pharmacy, Prof. of Biol. and Bact. Chem., and Chargé du Cours of Pract. Pharmacy. *Treasr.*—E. Vadboncœur, Pharmacien, Prof. of Magisterial Pharmacy.

Institut Agricole d'Oka. Affiliated to the Univ. About 30 miles from Montreal. Provides a 4 years course leading to the B.-en-Agr. and to the D.-en-Sc.Agr. Also offers short courses for farmers and grants Certifs. to those who follow them successfully and to students of the regular courses who reach a certain standard of proficiency without qualifying for the B.-en-Agr. The estate covers about 1800 acres. *Director-General*—Père Edouard, B.-ès-A., Prof. of Geol. and of Agric. Geog. *Director of Scientific Studies*—I. J. A. Marsan, Prof. of Agric., of Sylvic., &c.

Ecole d'Enseignement Supérieur pour les Jeunes Filles, Montreal. Affiliated to the Univ. Sections—Lettres ; Sciences (leading to the Dipl. of B.-ès-L., -ès-Sc., or -ès-Arts) ; Arts d'Agrément ; Commerce ; Œuvres Sociales ; Enseignement Ménager. The regular course in the 1st section covers 3 years ; that of the other sections varies according to the previous education of the student. *President*—G. Dauth, Chanoine, Vice-Recteur of the Univ. *Directrice*—Sœur Sainte Anne-Marie, L.Ph.

Other Affiliated Institutions. Ecole Agricole de St. Anne de la Pocatière ; Frères de la Congrégation de Ste. Croix (Modern Secondary Education).

Grands Séminaires. (Pupils obtain the B.-en-Th. by passing a certain number of quarterly examns. in the Seminary.) Chicoutimi ; Montreal (St. Sulpice, constituting the Montreal Faculty of Theology) ; Nicolet ; Quebec (comprising all students under its jurisdiction or following its courses) ; Rimouski ; Ste. Anne de la Pocatière (Coll. de Ste. Anne) ; Trois Rivières ; Valleyfield.

Collèges. (Preparing pupils for the examns. for Inscription and Baccalauréat). Chicoutimi ; Joliette ; L'Assomption ; Lévis ; Montreal ; Nicolet ; Nominingue ; Quebec, Petit Séminaire ; Quebec,

Académie de S. Louis du Bon Pasteur ; Rigaud (Coll. Bourget) ; Rimouski (Petit Séminaire de St. Germain) ; Ste. Anne de la Pocatière ; St. Hyacinthe ; St. Jean d'Iberville ; St. Laurent ; Ste. Thérèse de Blainville ; Sherbrooke ; Trois Rivières ; Valleyfield.

Collège agrégé (outside the Province). Charlottetown, Collège de St. Dunstan.

THE YEAR 1912–13

Benefactions Received. Endowment of a Chair of Phthisiotherapy.

Fresh Sources of Revenue. Special octroi duties of the Dominion and Provl. Govts.

Special Events. Visit of the Govr.-Genl. of Canada. First Congress of the French Language in Canada held under the patronage of the Univ. at Quebec at the beginning of the year.

New Departments and Posts. Chairs of (1) Financial, Comml., and Industrial Legislation ; (2) Phthisiotherapy ; (3) Syphiligraphy and Dermatology ; (4) the Curing of Food (Inst. d'Agric. d'Oka) ; an Instructor in Underground Drainage (Inst. d'Agric.). The laboratories of the Faculty of Medicine have all been reorganized.

Number of Students, 1912–13. Quebec : 456 (including 78 students of the Seminary following Arts courses and 72 of the Surveying and Forest Schools). Montreal : 1698 [including 74 students of the Maristes, Instruction Chrétienne and Sainte Croix Brotherhoods (Enseignement Secondaire Moderne), 496 of the Ecole d'Enseignement Supérieur pour les Jeunes Filles, and 520 of the Polyt., Méd. Comp., Chir. Dent., and Pharm. Schools and the Inst. d'Agric.], Women students, 496 ; continuing study in Europe 15, in U.S.A. 2.

Degrees Conferred in 1913. B.-ès-A., 19 ; M.-ès-A., 2 ; B.-ès-L., 2 ; B-ès-Sc., 3 ; L.-en-Ph., 7 ; D.-ès-Sc.Mor. et Pol., 1 (*ad eundem*) ; B.-en-Th., 2 ; L.-en-Th., 2 ; B.-en-Dr., 27 ; L.-en-Dr., 13 ; L.-en-Dr.Can., 4 ; B.-en-M., 9 ; D.-en-M., 20 ; B.-en-M.V., 11 ; D.-en-M.V., 15 ; B.-en-Ch.D., 16 ; D.-en-Ch.D., 21 ; B.-en-Phm., 3 ; B-ès-A.A., 2 ; B.-ès-Sc.A., 6 ; B.-en-Agr., 4 ; Arp. Stag., 1 ; Archit., 2 ; Ing. For., 9 ; Ing. Civ., 15.

Additions to Buildings. A large building for the Schools of Comp. Med. and Dent. Surg. ; a fireproof Library—both at Montreal.

New Affiliations. Frères de la Cong. de Ste. Croix (Modern Secondary Educn.) ; Académie de St. Louis du Bon Pasteur, Quebec ; Collège de Nominingue.

UNIVERSITY OF LEEDS

[Established by Royal Charter dated April 25, 1904. The Leeds School of Medicine, founded 1831, and Yorkshire Coll., established as a Coll. of Science in 1874, were united in 1884; from 1887 to 1903 the Coll. formed part of Victoria Univ.; from Oct. 1903 to April 1904 it was associated with Owens Coll. in the Victoria Univ. of Manchester.]

VISITOR	HIS MAJESTY THE KING.
CHANCELLOR	HIS GRACE THE DUKE OF DEVONSHIRE, G.C.V.O., LL.D.
PRO-CHANCELLOR	A. G. LUPTON, LL.D.
VICE-CHANCELLOR	M. E. SADLER, LL.D., Litt.D., C.B.
TREASURER	Rt. Hon. LORD ALLERTON, LL.D., F.R.S.
CLERK TO THE SENATE	FRED. T. BAINES, B.A.
SECRETARY	ARCHIBALD E. WHEELER.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY, v. *Economics*

AGRICULTURE (v. also *Vet. Sc.*)

SETON, R. S., B.SC. EDIN. Prof.
HAYDON, R. W. Lectr.
ARCHIBALD, C. F. Lectr.
POTTS, J., B.SC. DURH. Asst. Lectr. and Demr.
RUSTON, A. G., B.A., B.SC. LOND. Science Tutor.
CRAWFORD, W. R. Live Stock Officer.
JACKSON, F. K., N.D.A. Director of Flax Experiments.

Agric. Botany and Forestry

MILLARD, W. A., B.SC. BRIS. Lectr.
LEE, E., A.R.C.SC. Asst. Lectr.

Agric. Chemistry

CROWTHER, C., M.A. OX., PH.D. LEIP. Prof.
GODDEN, W., B.SC., A.R.C.S., F.I.C. Asst. Lectr.
COMBER, N. M., B.SC. Asst. Lectr.
STEUART, D. W., B.SC. EDIN. Research Asst.

Biochemistry

DUDLEY, H. W., M.SC., PH.D. Lectr.

Agric. Zoology

TAYLOR, T. H., M.A., R.U.I. Lectr.

Poultry Keeping

PARTON, F. W. Lectr. and Demr.

8 Instrs. and Asst. Instrs. in *Practical Horticulture, Farriery, Dairying.*

ANATOMY [Prof.

JAMIESON, J. KAY, M.B., C.M. EDIN.
BRASH, J. C., M.A., B.SC., M.B. EDIN. Demr.
TEALE, M. A., M.A. OX., M.R.C.S., L.R.C.P. Hon. Demr.
MORTON, W. C., M.A., M.D. EDIN. ,,
DAW, S. W., M.B., B.S. LOND., F.R.C.S. *,,

* Takes part in Clinical teaching.

BOTANY

PRIESTLEY, J. H., B.SC. LOND., F.L.S. Prof.
WALKER, N. Asst. Lectr. and Demr.
STILES, W., M.A. CAMB. ,,
KNIGHT, R. C., B.SC. BRIS. Research Asst.
SMITH, MISS J. E., B.SC. ,,
JORGENSEN, J. ,,

CHEMISTRY (v. also *Agric.*, *Physiol.*, and *Tech.*)

SMITHELLS, A., B.SC. LOND. AND MANC., F.R.S. Prof.
LOWSON, W., B.SC. LOND. AND LEEDS, F.I.C. Asst. Lectr. and Demr.
PERKINS, W. H., M.SC. MANC. ,,
CALAM, H., M.SC., F.I.C. Demr.
PATTERSON, H. S., B.SC. LOND. ,,

Organic Chemistry

COHEN, J. B., B.SC. MANC., PH.D. MUN., F.R.S. Prof.
MARSHALL, J., B.SC. Demr.

Physical Chemistry

DAWSON, H. M., B.SC. LOND., D.SC. LEEDS, PH.D. GIES. Lectr.

CLASSICS

ROBERTS, W. R., M.A., LITT.D. CAMB., LL.D. ST. AND. Prof.
CONNAL, B. M., M.A. OX. Prof.
DODD, P. W., B.A. OX. Asst. Lectr.

C. and Anc. Hist.

WOODWARD, A. M., M.A. OX. Asst. Lectr.

DENTISTRY

Dent. Anat. and Physiol.

FORTY, A. ALAN, L.D.S. Lectr.

Dent. Mechanics

RIPPON, C., L.D.S. Lectr.

Dent. Metallurgy

LOWSON, W., B.SC. LOND. AND LEEDS, F.I.C. Lectr.

Dent. Surgery

PLUMLEY, A. G. G., M.B. LOND., M.R.C.S., L.R.C.P., L.D.S. Lectr.

Operative Dent. Surgery

HEY, S. D., L.D.S. Lectr.

ECONOMICS

MACGREGOR, D. H., M.A. CAMB. Prof.
GREENWOOD, A., B.SC. Lectr.

Accountancy

SHAW, W. H., F.C.A. Lectr.

Geography [Asst. Lectr.

JONES, L. R., B.SC. LOND.

Social Organization

CLAY, H., B.A. OX. Univ. Lectr.
DOWER, R. S., M.A. CAMB. Univ. Lectr.

EDUCATION

WELTON, J., M.A. CAMB. Prof.
WELPTON, W. P., B.SC. LOND. Lectr. and Master of Method.
MONAHAN, A. J., M.A. Asst. Lectr.
ROBERTSON, MISS H., B.A. LOND. Tutor of Women Students and Mistress of Method.
TURNER, F. W., B.SC. Asst. Master of Method.
BLACKBURN, MISS E. M., M.A. Asst. Lectr. and Asst. Mistress of Method.

Music, Reading, &c. [Teacher.

HOGGETT, T. J., MUS.B. DURH.

Needlework

OATES, MRS. F. E. Teacher.

ENGINEERING, Civ. & Mech.

GOODMAN, J., M.I.C.E., M.I.M.E. Prof.
DUNCAN, R. H., A.R.C.SC. Asst. Lectr. and Demr.
MYERS, H. S., M.I.M.E. ,,
ROWELL, H. S., A.R.C.SC., B.SC., A.M.I.M.E. Asst. Lectr. and Demr.
STELFOX, S. H., B.SC., A.M.I.C.E. Asst. Lectr. and Demr.

Civil Engineering [Lectr.

GILCHRIST, J., B.SC. EDIN., A.M.I.C.E.

Electrical Engineering

PARR, G. D. A., M.SC., M.I.E.E., A.M.I.M.E. Lectr.
FRENCH, W. E., A.M.I.C.E. Asst. Lectr. and Demr.

GEOGRAPHY, v. *Economics*

GEOLOGY

KENDALL, P. F., M.SC., F.G.S. Prof.
GILLIGAN, A., B.SC. WALES, F.G.S. Asst. Lectr. and Demr.
ODLING, M., M.A., B.SC. OX., F.G.S. Demr.

HISTORY

GRANT, A. J., M.A. CAMB. Prof.
COOKE, MISS A. M., M.A. MANC. Lectr.

History of Political Theory

FIGGIS, J. N., M.A., LITT.D. CAMB. Hon. Lectr.

HISTOLOGY, v. *Physiology*

HYGIENE, v. *Med.—Pub. Health*

LANGUAGES and Literature (v. also *Classics*)

English Lang. and Lit.

GORDON, G. S., M.A. OX. Prof.

English Language

MOORMAN, F. W., B.A. LOND., PH.D. STRASS. Prof.

French Lang. and Romance Philol., and French Lit.

BARBIER, P., *fils*, M.A. LOND. Prof.
GUNNELL, MISS D., M.A., DOCT. DE L'U. PARIS Asst. Lectr.

German Lang. and Lit. [Prof.

SCHÜDDEKOPF, A. W., PH.D. GÖTT.
GOUGH, C. E., PH.D. BASLE Asst. Lectr.

LAW

PHILLIPS, W. R., LL.M. CAMB. Prof.
CHAPMAN, A. E., M.A., LL.D. CAMB. Lectr.
OWEN, W. H., LL.B. LOND. Lectr. at Hull.

MATHEMATICS

ROGERS, L. J., M.A., MUS.B. OX. Prof.
WATSON, F. B., B.A. CAMB., M.A., M.SC. DURH. Asst. Lectr.

MEDICINE and Surgery

Bacteriology, v. *Pathology*

Forensic Medicine [Prof.

EURICH, F. W., M.D., C.M. EDIN.
STEDMAN, T. B., M.D. LOND., M.R.C.S., L.R.C.P. Hon. Demr. in *Tox.*

Gynæcology (v. also *Obstetrics*)

CROFT, E. O., M.D. DURH., M.R.C.S., L.R.C.P. Lectr.

Infectious Diseases [Clin. Lectr.

PEARSON, A. E., M.R.C.S., L.R.C.P.

Materia Medica, v. *Therap.*

Medicine

GRIFFITH, T. W., M.D. ABERD., F.R.C.P. * Prof.
WATSON, G. W., M.D. LOND., M.R.C.P. * Hon. Demr.

Medicine, Clinical [Prof.

BARRS, A. G., M.D. EDIN., F.R.C.P.
BURROW, J. LE F. C., M.B. EDIN. Med. Tutor.
CHURTON, T., M.D. ABERD. * Lectr.
TELLING, W. H. M., M.D. LOND. * ,,

Mental Diseases

BOLTON, J. S., M.D., D.SC. LOND., F.R.C.P. Prof.

Obstetrics [* Prof.

HELLIER, J. B., M.D. LOND., M.R.C.S.

Obstetrics, Clinical

GOUGH, W., B.SC., M.B., B.S. LOND., F.R.C.S. Hon. Demr.

Obstetrics and Gynæcology

OLDFIELD, C., M.D. LOND., M.R.C.P., F.R.C.S. Hon. Demr.

Ophthalmology [* Lectr.

WHITEHEAD, A. L., M.B., B.S. LOND.
WALKER, H. S., M.SC., F.R.C.S. Clin. Lectr.

Otology [* Lectr.

HAYES, G. C., F.R.C.S., L.R.C.P.
BAIN, E. W., M.B., B.S., F.R.C.S. Clin. Lectr.

Pathology and Bacteriology

GRÜNBAUM, A. S., M.A., M.D., SC.D. CAMB., F.R.C.P., D.P.H. * Prof.

Bact. and Public Health [Demr.

COPLANS, M., M.D. LOND., D.P.H.

Pathology

ADAMSON, W. W., M.B., CH.B. GLAS., D.P.H. Demr.

* Takes part in Clinical teaching.

Pathology, Clinical
STEWART, M. J., M.B., CH.B. GLAS., M.R.C.P. Hon. Demr.

Pathology, Medical
VEALE, R. A., B.A. OX., M.D., B.S. LOND., M.R.C.P. * Hon. Demr.

Pathology, Surgical
COLLINSON, H., M.B., M.S. LOND., F.R.C.S. * Hon. Demr.

Pharmacy, v. *Therapeutics*

Public Health (v. also *Path.*)
CAMERON, J. S., B.SC., M.D., C.M. EDIN. Prof.

Surgery
KNAGGS, R. L., M.A., M.D., M.C. CAMB., F.R.C.S. * Prof.
COUPLAND, J. A., M.B., B.S. LOND., F.R.C.S. * Hon. Demr.

Surgery, Clinical
MOYNIHAN, SIR BERKELEY G. A., M.S. LOND., F.R.C.S. Prof.
BRAITHWAITE, L. R., M.B., CH.B. MANC., F.R.C.S. ,,
RICHARDSON, A., M.B., B.S. LOND., F.R.C.S. Surg. Tutor.

Surgery, Operative [* Lectr.
DOBSON, J. F., M. S. LOND., F.R.C.S.

Surgery, Practical
THOMPSON, W., F.R.C.S. * Lectr.

Therap., Pharmacy, and Mat. Med.
CAMPBELL, H. J., M.D. LOND., F.R.C.P. Prof.

Pharmacy and Mat. Med.
GOUGH, J. H. Demr.

Pharmacology [* Hon. Demr.
VINING, C. W., M.D., M.R.C.P., D.P.H.

Vaccination
BACON, A. T., L.R.C.P.E., M.R.C.S. Instr.

MINING
HUMMEL, E. L., B.SC. Prof.
MORGANS, D. B., B.SC. WALES Asst. Lectr. and Demr.

PHILOLOGY, v. *Langs. and Lit.*

PHILOSOPHY
GILLESPIE, C. M., M.A. OX. Prof.

PHYSICS [Cavendish Prof.
BRAGG, W. H., M.A. CAMB., F.R.S.
ALLEN, A. O., M.A., B.SC. LOND., A.R.C.SC. Asst. Lectr. and Demr.
SHORTER, S. A., B.SC. MANC., D.SC. LEEDS Asst. Lectr. and Demr.
PORTER, H. L., B.SC. LOND. Demr.
NUTTALL, J. M. Demr.
CAMPBELL, N. R., M.A., SC.D. CAMB. Hon. Research Fellow.

PHYSIOLOGY and Histology
BIRCH, DE B., C.B., M.D., C.M. EDIN., F.R.S.E. Prof.
LLOYD, W. G., M.SC., M.B., CH.B. MANC. AND LIV. Demr.

Chemical Physiol. [Lectr.
RAPER, H. S., D.SC., M.B., CH.B.

POLITICAL SCIENCE, v. *Hist.*

PUBLIC HEALTH, v. *Med.*

TECHNOLOGY (v. also *Agric.*)

Coal Gas and Fuel Industries with Metallurgy
COBB, J. W., B.SC. LEEDS AND LOND. Livesey Prof.
HODSMAN, H. J., M.SC. Asst. Lectr. and Demr.
HARRISON, W., M.SC. Research Chemist.

Applied Chem. (Leather Industries)
STIASNY, E., PH.D. Prof.
BRUMWELL, H. Asst. Lectr. and Demr.
ATKIN, W. R., M.SC. ,,
THOMPSON, F. C., M.SC. Demr.
WILKINSON, E. E. Special Asst.

Textile Industries
VACANT Prof.
HOLLIS, T. Lectr. in Yarn Manuf.
YEWDALL, A. Asst. Lectr. & Demr.
LAW, W. Textile Designer and Asst. Lectr.
WILKINSON, H. Demr.
FARLEY, W. A. Art Teacher.

* Takes part in Clinical teaching.

Tinctorial Chem. and Dyeing

GREEN, A. G., M.SC., F.I.C. Prof.

PERKIN, A. G., F.R.S., F.I.C. Lectr. and Research Chemist.

FRANK, G. H., M.SC. Asst. Lectr. and Demr.

WOODHEAD, A. E., M.SC. Demr.

VETERINARY SCIENCE

BOWES, H. G., F.R.C.V.S. Lectr.

ZOOLOGY

GARSTANG, W., M.A., D.SC. OX. Prof.

KING, W. O. R., B.A. CAMB. Asst. Lectr. and Demr.

LEBOUR, MISS M. V., M.SC. DURH. Asst. Lectr. and Demr.

BRIGGS, MISS M. H., B.SC. Research Asst.

CHANGES IN STAFF

Atkin, W. R., apptd. Asst. Lectr. and Demr. in Leather Indust.
Barrett, Miss F. M., apptd. Museum Curator in Dept. of Tinct. Chem.
Beaumont, R., M.Sc., M.I.M.E., Prof. of Text. Indust., resigned.
Blackburn, Miss E. M., apptd. Asst. Lectr. in Educn.
Bowen, D., F.G.S., M.I.M.E., Asst. Lectr. and Demr. in Mining, resigned.
Briggs, Miss M. H., B.Sc., apptd. Research Asst. in Zool.
Clark, R. V., M.A., B.Sc., M.B., D.P.H., Hon. Demr. in Pub. Health, resigned.
Collinson, H., apptd. *vice* Telling.
Crawford, W. R., apptd. Live Stock Officer for Yorks.
Crowther, C., apptd. Prof. of Agric. Chem. and Head of Research Institn. in Animal Nutrition.
Daw, S. W., M.B., F.R.C.S., Surg. Tutor, resigned.
Dudley, H. W., of the Herter Lab., N.Y., apptd. Lectr. in Biochem.
du Gillon, P. H. M., Prof. of French Lit., deceased.
Edmonds, W. S., F.R.C.Sc.I., Asst. Lectr. and Demr. in Phys., resigned.
Gordon, G. S., apptd. *vice* Vaughan.
Gray, H. H., B.Sc., Asst. Lectr. and Demr. in Coal Gas, &c., resigned.
Greenwood, A., apptd. Lectr. in Economics.
Harrison, W., M.Sc., apptd. Research Chemist in Coal Gas, &c.
Hector, J. M., B.Sc., Lectr. in Agric. Bot. and Forestry, resigned.
Hey, Miss M., B.Sc., Research Asst. in Zool., resigned.
Hodsman, H. J., apptd. *vice* Gray.
Hummel, E. L., apptd. Prof. of Mining.
Jackson, F. K., N.D.A., apptd. Director of Flax Exper. Station, Selby.
Jorgensen, I., apptd. Research Asst. in Botany.
Kean, F. J., B.Sc., Asst. Lectr. and Demr. in Civ. and Mech. Engin., resigned.
King, W. O. R., apptd. Asst. Lectr. and Demr. in Zool.
Knight, R. C., apptd. *vice* Welsford.
Lee, E., apptd. Asst. Lectr. in Agric. Botany.
Littlewood, H., Clin. Lectr. in Surg., resigned.
Lockwood, J. P., B.A., Lectr. in Law at Hull, resigned.

Marshall, H., apptd. Special Asst. in Agric.
Millard, W. A., apptd. *vice* Hector.
Morgans, D. B., apptd. Asst. Lectr. and Demr. in Mining.
Procter, H. R., M.Sc., F.I.C., Prof. of Applied Chem. (Chem. of Leather Manuf.), resigned.
Raper, H. S., of Toronto Univ., apptd. Lectr. in Chem. Physiol.
Richardson, A., apptd. Surgical Tutor.
Rowell, H. S., apptd. *vice* Kean.
Smith, Miss J. E., apptd. Research Asst. in Botany.
Smithells, A., Prof. of Chem., apptd. Lectr. (temporary) for the Panjab Univ., retaining his chair in Leeds.
Stelfox, S. H., apptd. *vice* Thomson.
Stiasny, E., apptd. *vice* Procter.
Telling, W. H. M., Clin. Sub-Dean of Faculty of Med., resigned.
Thompson, F. C., apptd. Research Asst. in Leather Industries.
Thomson, J. M., Asst. Lectr. and Demr. in Civ. and Mech. Engin., resigned.
Vaughan, C. E., M.A., Prof. of Engl. Lang. and Lit., resigned.
Vining, C. W., apptd. Clin. Lectr. in Med. and Hon. Demr. in Pharmacol.
Welsford, Miss E. J., F.L.S., Research Asst. in Bot., resigned.
Whitehead, A. L., apptd. Lectr. in Ophth.
Wilkinson, C. D., Demr. in Leather Indust., resigned.
Woodward, A. M., apptd. Asst. Lectr. in Classics and Anc. Hist.

GENERAL INFORMATION

FACULTIES. (1) Arts (including Economics and Commerce, Education and Law); (2) Medicine (including Pub. Health); (3) Science; (4) Technology (including Agriculture, Coal Gas and Fuel Industries with Metallurgy, Engineering, Leather Industries, Mining, Tinctorial Chemistry, and Dyeing and Textile Industries). There are Advisory Committees of Council for (among other matters) the several depts. of Technology, for Elem. and Secondary Training, for Law, for Economics and Commerce, for Univ. Extension and Tutorial Classes, and for Military Education.

The MATRICULATION examn. must be passed by students before entering on the Degree Courses (*see* Appendix III).

TERMS 1913–14. First term in Arts, Sc., and Tech., Sept. 29 to Dec. 19; in Med., Oct. 1 to Dec. 20. Second term in Med., Jan. 12 to March 21; in Arts, Sc., and Tech., Jan. 13 to March 21. Third term in all Faculties, April 21 to July 4.

DEGREES, &c. Arts—B.A., M.A., Litt.D.; Law—LL.B., LL.M., LL.D.; Medicine and Surgery—M.B., Ch.B., M.D., Ch.M.; Dental Surgery—B.Ch.D., M.Ch.D.; Science—B.Sc., M.Sc., D.Sc.; Commerce—B.Com. *Diplomas* are granted in Civil Engin., Coal-mining, Comm., Dent. Surg., Dyeing, Educn., Elec. Engin., Fuel and Metall.,

Gas Engin., Leather Manuf., Mech. Engin., Pub. Health, Psych. Med., Social Organization and Pub. Service, French and German (teaching), Textile Industries.

The minimum period of study for a degree is 3 yrs., all subsequent to passing the Matricn. examn. The Charter requires that in examns. for degrees at least one external and independent examiner shall be appointed for each subject or group forming part of the course for degrees.

Arts. A condition of admission to the B.A. course is a knowledge of Latin equivalent to that required at the Matricn. examn. The Interm. examn. held at the end of the 1st yr. is in 5 subjects, including 2 of the following: Greek, Latin, French, German, Hebrew, of which one must be Greek or Latin. Candidates for Honours, however, do not have to pass an Interm. examn. unless presenting themselves for the Honours School of Engl., Hist., or Philos. They devote at least 3 yrs. to courses in one of the Honours Schools, viz.: Class., Engl. Lang. and Lit., Mod. Langs. and Lits., Hist., Philos., Econ. and Pol. Sc. The *M.A. degree* may be conferred on a B.A. of not less than 1 yr.'s standing who has graduated with Honours, on presentation of a satisfactory dissertation. A B.A. who did not graduate with Honours is ordinarily required to pass an examn. and may pass a more extended examn. in lieu of presenting a dissertation. A person who, having passed the Final examn. for a degree of an approved Univ. and satisfied the Senate that he is qualified for *advanced study or research*, pursues such study or research satisfactorily for 2 yrs., may be admitted M.A. A M.A. may, in or after the 6th yr. from his admission as B.A., apply for the Litt.D. degree on the ground of distinction by special research or learning.

The *Education* Diploma course may be taken in 1 or spread over 2 yrs. It is open to women students only. Candidates must be grads. of a Univ. in the U.K. or have obtained other approved academic qualifications. The Diplomas for Teachers of French or German involve attendance for 1 yr. after proof of attainment of the standard of the Final examn. in French or German for the ordinary B.A. degree.

The *Economics and Commerce* Dept. provides a 3 yrs. course for the B.Com. degree, a 2 yrs. course for the Diploma in Commerce, and a 1 yr's. course for the Diploma in Social Organization and Public Service. The subjects for the B.Com. Final examn. are Econ., French, German, Accountancy; but for French or German may be substituted Econ. Geog. and Comml. Law. The Comm. Diploma course is open to persons who have passed the Matricn. examn. with one Modern Foreign Lang. or an equivalent examn. The course includes as compulsory subjects Econ., French or German, Econ. Geog., Accountancy, Comml. Law. The S.O. and P.S. Diploma is open to grads. and persons who satisfy the Senate that they are fitted for the course. The Prof. of Econ. directs the course. It includes practical work in connexion with societies and authorities.

Law. After passing an Interm. examn. at the end of the 1st yr. of study for the LL.B., a candidate selects 1 of 2 courses: (1) Rom.

Law, Jurispr., and Pub. or Private Internat. Law; (2) Property, Equity, Common Law, Evidence and Procedure, Jurispr. A LL.B. of not less than 1 yr.'s standing may be admitted LL.M. on passing an examn. in the subjects of the alternative course not selected by him for the LL.B. The conditions for the LL.D. are parallel to those for the Litt.D. The Law Dept. provides instruction preparatory for the Univ. degrees, and the examns. of the Council of Leg. Educn. for the Bar and of the Law Soc. for admission to practise as Solicitor. The classes are also useful to candidates for the Law degree of the Univ. of London.

MEDICINE. The degrees of M.B. and Ch.B. are taken together. Of the requisite 5 yrs. of medical study at least 2 must be passed in the Univ., and of these at least 1 must be subsequent to passing the 1st examn. In addition to meeting the requirements common to all schools recognized by the Genl. Med. Council, candidates are required to furnish certificates: (*a*) Of having attended approved courses in the Univ. or a recognized Med. School or Hospl. in Pharmacol. and Therap. during 1 term; Path. and Bact., 3 terms; For. Med., 1 term; Pub. Health, 1 term; Obst. and Gynæc., 2 terms; Surg., 3 terms; Pract. Surg., 2 terms; Ophth., 1 term; Med., 4 terms. (*b*) In respect of Hospl. work: in Med. and Surg. of having attended the practice of approved Hospls. during 2½ yrs., and Clin. lectures, Med. 2 yrs., and Surg. 2 yrs.; in Path. and Morbid. Anat. of having attended during at least 12 mos. demonstrations in the post-mortem room of a Hospl.; of having received clin. instruction in Dis. of the Eye, Ear, Throat, and Skin; of having acted as Surg. Dresser for 6 mos., as Clin. Clerk for 6 mos., and as Clerk for 3 mos. in the post-mortem room of a recognized Hospl.

A M.B. and Ch.B. may be admitted M.D. or Ch.M. after 1 yr. has elapsed since he passed his final examn. For the M.D. he must present a satisfactory dissertation embodying the results of personal observations or original research and, unless exempted by the Board of the Faculty, pass an examn. For the Ch.M. he must have held for 6 mos. since taking his first medical degree a Surgical appointment in a public institn. affording full opportunity for the study of Practical Surgery, attended approved courses in Oper. Surg., Bact., and Ophth. and personally practised the principal surgical operations on the dead body, and must pass the examn. prescribed for this degree.

Hospitals available for clinics: The General Infirmary (520 beds) and Pub. Dispensary, City Fever and Small-pox Hospls. (180 beds), the Women's and Children's (51 beds), and Maternity (33 beds). The W. Riding Lun. Asylum has over 2000 patients.

The *Public Health* Diploma examn. is open to candidates who have held a registrable qualification in Med., Surg., and Midw., and present certifs. of having (1) attended approved courses in Pub. Health; (2) after obtaining a registrable qualification, attended 6 mos. practical instruction in approved labs. (at least 3 mos. in the Univ.) in Chem., Bact., and Path. of Dis. of Animals, and 3 mos. clin. and administrative practice of an approved Hospl. for Infec. Dis., and been diligently

engaged during 6 mos. (3 being distinct from the lab. instruction above mentioned) in acquiring, under proper supervision, a knowledge of the duties of Pub. Health administration. The last-mentioned 6 mos. may be reduced to 3 if an approved course of instruction in subjects bearing on Pub. Health administration is attended during 3 mos. after obtaining a registrable qualification.

The *Psychological Medicine* Diploma examn. is open to grads. in Med. of 1 yr.'s standing, or persons who have acted as Asst. Med. Officers in large asylums for 2 yrs. on certain conditions.

Dental Surgery. Candidates for the B.Ch.D. degree are required to have pursued after passing the Matricn. examn. approved courses for 5 yrs., of which at least 2 must have been passed in the Univ. subsequent to passing in Parts I and II (Phys., Chem., Biol.) of the 1st of the 3 prescribed examns. Candidates for the L.D.S. must have attended approved courses for 4 yrs., of which 2 must have been spent in the Univ. after passing the Prelim. examn. in Science.

Science and Technology. An Interm. examn. in Phys. and two other subjects must be passed by all candidates for the B.Sc. degree. Candidates must also at some time during their course pass in an additional subject at the Interm. standard and a descriptive essay relative to their scientific or technical work. Candidates for the ordinary degree spend the 1st year in preparation for this examn., and in the 2nd and 3rd yrs. study two principal or one principal and two subsidiary subjects for a Final examn. If Colour Chemistry and Dyeing is taken, the Final examn. is ordinarily not taken until the end of the 4th year.

A candidate for *Honours* has to pass an Interm. and Final examn. as for the ordinary degree, but may pass the Interm. examn. in 3 subjects without previous attendance at the Univ. He also has to pass in a 4th subject at the Interm. stage. A candidate for Honours who has not passed the Interm. examn. prior to entrance at the Univ. need not present himself at the Interm. examn. (if taken after pursuing approved courses in the Univ.) in any subject which he will subsequently offer at a higher standard, and need not pass simultaneously in all the prescribed subjects. A candidate considered qualified for a course of *Research* may pursue such a course and present a thesis in place of part or the whole of the Honours examn. A candidate who has passed the 2nd M.B. examn. may be excused 1 or 2 yrs. of the Honours course. Candidates for Honours in Mining Engin. or Gas Engin. or Fuel and Metall. first take the ordinary degree, and then spend a year (not necessarily at the Univ.) in research or preparation for a thesis. Honours in Gas Engin. or Fuel and Metall. may be conferred on candidates who, having graduated in Science at this or an approved Univ. with Chem. or Engin. as a principal subject, subsequently complete the course and pass the examn. required for the Diploma and spend an additional year in satisfactory research in the Dept.

The regns. for the M.Sc. and D.Sc. degrees are parallel to those for the M.A. and Litt.D., as described above.

Engineering. The courses enable students to acquire the principles

underlying the Art of Engin., but apprenticeship or pupilage in works and offices is the only means whereby he can obtain a thorough knowledge of practical details. One year's practical experience before taking up the Univ. course is desirable (*v.* the Univ.'s pamphlet on "The Training of Professional Engineers"). An entrance examn. must be passed by students who have not passed the Matricn. or equivalent examn. The instruction during the 1st yr. of the complete course is the same for Civ., Mech., and Elec. Engin. Diplomas are awarded to those who satisfactorily complete the class work of the course and pass the final principal Engin. papers set for the ordinary degree of B.Sc. The normal courses of study in Civ. and Mech. Engin. extend over a period of 3 yrs., but there are 2 yrs. courses also in these subjects. Engin. students who have a sufficient knowledge of the whole of the 1st yr.'s work of the 3 yrs. course may be admitted to the 2nd yr.

Mining. Six distinct courses are provided: (1) for the B.Sc. degree; (2) for the Diploma in Coal-mining, 3 yrs.; (3) for miners and sub-officials, 4 yrs.; (4) for teachers of Science as applied to Mining, 2 yrs.; (5) for teachers of Gas Testing, &c.; (6) for teachers of Engin. as applied to Mining, 2 yrs. Students entering for (1) and (2) must have passed the Matricn. or other approved examn. or a special entrance examn.; (3) involves attendance during one afternoon (3 to 7 P.M.) each week during the sessions.

Coal, Gas, and Fuel Industries with Metallurgy. The Metall. courses, besides dealing with general processes for concentration and extraction, are chiefly directed to problems of blast-furnace and open-hearth steel practice and the microstructure, physical properties, and heat treatment of steel and other alloys. The B.Sc. degree course in (i) Fuel and Metall. and (ii) Gas Engin. is the same for students of both branches during the 1st yr. Honours are obtained by a year of research or advanced study after taking the ordinary degree. A *Diploma* in either branch may be obtained by a grad. in Science of this or some approved Univ. after a year of special study in the Univ. and after having passed an examn. thereon; by an additional year of research in the Dept. he may qualify for the B.Sc. with Honours. A Diploma in either branch may also be obtained by attendance on special courses which are usually similar to courses taken by degree students. A 4 yrs. Diploma course has also been arranged for students serving apprenticeship in Gas Engin. or Metall., which involves 3 days per week attendance or equivalent time for the 1st yr., and at least 2½ days per week or its equivalent in the 3 succeeding years.

Two-years courses in both branches are provided for students, not proposing to take a degree, who have passed the Matricn. or an equivalent examn. or the entrance examn. for Mining students.

Textile Industries. This Dept. (endowed by the Clothworkers' Company of the City of London) comprises 4 branches: (1) Woollen Yarn Manuf.; (2) Worsted Yarn Manuf. (English and Continental systems); (3) Designing, Weaving, and Textile Manuf.; (4) Finishing. Three-years Diploma courses (including German) are provided in

(*a*) Textile Designing and Cloth Finishing; (*b*) Woollen and Worsted Yarn Manuf.; (*c*) Textile Manuf.

Tinctorial Chemistry and Dyeing. The courses are: (i) 3 yrs. qualifying for Diploma in Dyeing. (ii) 4 yrs. for Colour Chemists qualifying for B.Sc. degree. (iii) Part-time 5 yrs. apprenticeship course for the Diploma in Dyeing, work being done at the Univ. during 2 terms in each year (or 2 terms during 3 yrs. and 3 terms during the final year). (iv) 4 yrs. Diploma course for Textile Chemists. (i), (ii), and (iv) include studies in German.

Leather Industries. In this Dept. (which is aided by the Skinners' Company of the City of London and by members of the Leather trades) a student may take a 3 yrs. course for the ordinary B.Sc. degree, a 4 yrs. course for an Honours degree, or a 3 yrs. Diploma course. German is necessary in the 1st and 2nd and recommended in the 3rd. An advanced 1 yr.'s course for grads. is provided. The M.Sc. and D.Sc. degrees may be obtained on the conditions stated for Science grads.

Agriculture. At least 1 yr. of work on an approved farm before entering the Dept. is recommended. The courses provided are: (1) General; (2) for the National Diploma, awarded jointly by the R. Ag. Soc. of England and the Highland and Ag. Soc. of Scotland; (3) for the B.Sc. degree. Students taking (1) or (2) are free to devote the spring and summer months to practical farm work, except that candidates for the N.D.A. take a summer course in their 1st yr. Students are also prepared for the examns. of the Surveyors' Institn., which body recognizes the Leeds courses.

Training of Teachers. All students of the Elem. School Teachers' Training Dept. are required to fulfil the requirements for a degree of the Univ. The professional training is conducted by the staff of the Dept. of Education. This includes part of the course for a pass degree. A full course in the Theory and Practice of Education is provided for women students preparing for teacherships in Secondary Schools, and a course for a Diploma in Educn. is open to women grads.

Research and Advisory Work. Special laboratories are provided in the several Depts. A large amount of research work is done not only in the various branches of Science but also in their application to industrial processes. Agric. experiments are undertaken at the Educational Farm at Garforth. The Agric. Dept. is prepared to give technical advice, to undertake investigation of local problems, and to test seeds and milk.

Scholarships, &c., for Graduates. John Rutson, £70 for 1 yr., renewable, for advanced study or research in Arts in the Univ. or an approved institn.; Clothworkers, £60 for 1 yr., renewable, for research in the Tinctorial Chem. Dept.; Thorp, £25, 1 yr., for research in For. Medicine or Pub. Health; two Fellowships of £100 each for research in Gas Chemistry and in Textile and Colour Chemistry respectively; Univ. Scholarships, &c., to the value of about £200 p.a., awarded on the Degree examns.; 1851 Exhibn. Science Research Scholarship of

the annual value of £150, tenable ordinarily for 2 yrs.; 1851 Exhibn. Industrial Bursary, not exceeding £100, for 1 yr., and renewable for a 2nd yr.; Gilchrist Studentship in Modern Langs., £80, tenable for 3 yrs., and open to grads. of either sex who have taken Honours in Mod. Langs. in this Univ. and propose teaching in Secondary Schools. The John Rutson Scholarship and the 2 Fellowships are open to candidates who are not members of the Univ., but as regards the Text. and Col. Chem. Fellowship preference is given to graduates of Leeds.

Appointments. A register is kept by the Univ. and information obtained by circularizing employers. Departmental registers are kept by Heads of Tech. Depts.

Women are eligible for any office in the Univ. All the degrees and courses are open to them, and no separate instruction is given to them. Many of them are King's Scholars in training for Teacherships. Two-thirds pursue courses in Arts, and a large proportion of Honours students take Mod. Langs. and Lits. A teachers' class in Science in relation to the Household has been instituted.

Residential Facilities. Univ. Hall for women has accommodation for 37 students. All women who are King's Scholars not residing with parents or guardians are required to reside in it. Lyddon Hall, 5 minutes walk from the Univ., has accommodation for 30 men students. A register of approved lodging-houses is kept, and is in charge of a special committee which acts through an officer appointed for the purpose and called the Supervisor of Lodgings. All students not living with relatives or friends are required to reside in an approved hostel or hall or lodging-house.

The Univ. Library contains about 30,000 vols. The Med. Library is composed of the united libraries of the School of Med. and of the Leeds and W. Riding Med.-Ch. Society.

Museums and Laboratories. The Museum of Path. contains, in addition to the usual teaching collections, many rare specimens, some of historical interest. In the Textile Museum there is a valuable collection of woven and other specimens. There is a museum of natural and artificial dyestuffs and textile fibres. The Engin. Labs. have a large number of testing machines and steam and other engines of various types. The Elec. Engin. Labs. comprise Dynamo, Motor, Transformer, Instrument Photometer, and Cable-jointing rooms, and Elem. Lab. fitted with a large variety of plants, including 26 types of current generators, motors, double commutator converters, rotaries, and rectifiers. The Fuel and Metall. Labs. are equipped for instruction and research in gas analysis, photometry, and spectrometry, calorimetry, combustion and explosion, the chem. of gas production, testing of gas coals, compression and liquefaction of gases, analysis of coals, ores, and metall. products, microstructure, heat treatment, and mechanical testing of steels, &c., and pyrometry. The Mining Labs

are fully equipped with the necessary apparatus and instruments for Mine Surveying and for the investigation of mining problems. The Textile Industries Dept. has a complete plant for demonstration of technicalities in each branch. The Weaving Section has 116 looms. The Tinctorial Chem. and Dyeing Labs. include an Exper. Dye-house, Practical Dye-houses, Printing Room, Clothworkers' Chem. Lab., and an Oils, Paints, Pigments, and Varnishes Lab. In the Leather Labs. and Workshops all the more important kinds of leather are made and finished. In addition, there are well-equipped labs. in the various depts. of Pure Science. In conjunction with Sheff. Univ. a small *Marine Laboratory* has been instituted at Robin Hood's Bay.

There is an Educational FARM at Garforth (7 miles from Leeds) covering 312 acres and including a Dairy School: *v. also* "The Year 1912–13—New Depts."

The Cecil Duncombe Astron. and Meteor. OBSERVATORY is situated near the Univ. buildings, and is under the care of a member of the Univ. Staff. The telescope is an 18¼″ reflector. There are a 3″ transit instrument and sidereal clock.

UNIVERSITY EXTENSION. Courses in Arts, Science, Lit., and Econ. are provided under a special scheme managed by an Advisory Committee, including representatives of the Univ., the W. Riding Educn. Committee, and the Workers' Educnl. Assocn. The same Committee arranges Tutorial Classes for working people. The students of the latter pledge themselves to attend for 3 winter sessions, during which meetings of 2 hours duration are held weekly, and each class is limited to 32 persons. Short introductory courses are also given to working-men's clubs and similar organizations. Summer meetings are arranged annually in connexion with the Univ. Tutorial Classes.

The important extension work connected with the Agric. Dept., occupying a considerable portion of the time of 9 lecturers, is under the control of a separate Advisory Committee.

In addition to the regular extension work, special public lectures are given on Art, Poetry, Music, History, and various scientific and tech. subjects (including Engin., Coal-mining, Textile Industries, and Geol.).

The Yorkshire Summer School of Geography has been instituted by the Univ. of Leeds in co-operation with Sheff. Univ. and the Armstrong Coll., Newcastle-upon-Tyne, and with the help of local authorities, to provide instruction in methods of Geog. The Agric., Mining, Textile, and Metall. Industries are dealt with, as well as questions connected with language and place-names. The lectures last about 3 weeks and certificates are granted.

PUBLICATIONS. The *Calendar*, pubd. about Sept., price 1s. (by post, 1s. 4d., or to places outside the U.K., 1s. 8d.); "Sir Nathan Bodington, First Vice-Chancellor of the Univ. of Leeds," by W. H. Draper, Macmillan, 5s.; *Annual Report of the Univ.* and *Annual Reports of certain Depts.* (viz. Clothworkers, Leather Industries, Coal Gas and

Fuel Indust.); *Books of Examn. Papers* set at Degree examns., 1s. (by post, 1s. 5d., or outside the U.K., 1s. 11d.); "Training of Professional Engineers," by Prof. Goodman.

AFFILIATED COLLEGES

A condition precedent to affiliation is that the majority of regular students are of the age of 16 yrs. Students of affiliated institns. cannot be admitted to degrees without attendance in the Univ. during at least 2 yrs. The ordinances require the inspection from time to time of all affiliated institns.

THE COLLEGE OF THE RESURRECTION, MIRFIELD. *Principal*, W. H. Frere, M.A. Students are exempt from attendance at the Univ. in the first of the 3 yrs. of study for the B.A. degree.

THE TECHNICAL COLLEGE, HUDDERSFIELD. *Principal*, J. F. Hudson, M.A., B.Sc. Attendance upon certain classes exempts from attendance in the Univ. in the 1st yr. of the courses for the B.A., B.Sc. (including Engin.), and M.B. and Ch.B.

THE YEAR 1912–13

BENEFACTIONS. Anonymous gift of £10,000 for the erection of a new building for the School of Agric.; £1088 raised by public subs. as a memorial to the late Sir Nathan Bodington, Principal of the Yorkshire Coll. and first Vice-Chancellor of the Univ., to be devoted to founding a Bodington Fellowship, Scholarship, Prize, or Grant; £50 presented by a former Prof. in the Univ.; bequest of £10 (Edward Davis); about 800 books presented by retiring Prof. of Engl. Lang. and Lit.; several valuable exhibits for the museums.

NEW DEPARTMENTS, &c. A chair of Agric. Chem.; a Lectr. in Biochem. in connexion with the Animal Nutrition Research Institn., of which the Prof. of Agric. Chem. is Head; a Research Chemist appointed in the Coal Gas and Fuel Industries Dept. to undertake research in ventilation; a Lectr. in Chem. Physiol.; a Live Stock Officer for Yorks., in connexion with the Live Stock Improvement Scheme of the Board of Agric.; an Asst. in connexion with a special investigation undertaken by the Agric. Dept.; a Director of the Flax Experiment Station, Selby; a Lectr. in Econ.; Asst. Lectrs. in Classics and Anc. Hist. and 1 in Agric. Bot.; 2 Research Assts. in Botany and 1 in Zool.; an Asst. Lectr. and Demr. in Zool.; an Instr. in Hortic. A proposal is on foot for the establishment of an International Research Laboratory under the Hon. Directorship of Prof H. R. Procter, who is retiring from the Chair of Applied Chem. (Chem. of Leather Manufacture). This Univ. is one of the institns. selected by H.M. Development Commrs. to conduct advanced research into Agric. subjects. It was at the request of the Commrs. that the Univ. undertook investigations into the growth and retting of flax in connexion with which a mill has been leased at Selby and flax was success-

fully grown on 120 acres in 1913. Govt. grants will be received for this work as well as in aid of the Animal Nutrition Research Institn. and for the provision for technical advice to farmers.

University Extension. Courses in Arts and Science were provided in 4 centres during 1912–13. Tutorial Classes were held at 6. In connexion with the Agric. Dept. about 370 lectures were given in 90 centres. The Summer School of Geog. (*v. supra*) was held at Whitby in Aug. 1913, and was attended by over 100 students. A 3 days Spring Holiday course in Engl., Physics, and Phys. Chem., intended primarily for former students of the Univ. and teachers, was held in the Univ. in April. 54 students attended. A similar course was planned for Jan. 1914. A series of week-end lectures on Modern Germany was given in May-June in connexion with the Tutorial Classes. Fortnightly midday musical recitals are given. A series of lectures on Music, Art, and the Drama, to be delivered in the Great Hall of the Univ., has been arranged for.

Number of Students. Medical, 147; other Faculties, 893; total registered students, 1026 (including 215 women); occasional, 86; evening (excluding those who only attended short courses), 208.

Honorary Degrees Conferred (Oct. 1912). *LL.D.*—Arthur Cooper, M.I.Mech.E.; Mrs. Robert Eddison; William Edward Garforth, LL.D.; William Hulton Keeling, M.A.; Sir Swire Smith. *D.Sc.*—Charles Carpenter, M.Inst.C.E.; Sir Robert Abbott Hadfield, D.Met., F.R.S., M.I.C.E., M.I.Mech.E.; Adolphe Greiner; Thomas Newbigging; Kommerzienrat Friedrich Springorum; John Edward Stead, D.Met., F.R.S., F.I.C., F.C.S.; Corbett Woodall.

Other Degrees (1912–13). M.A., 18 (including 3 women); B.A., 44 (18 women); D.Sc., 2; M.Sc., 14 (1 woman); B.Sc., 44 (5 women); LL.B., 2; M.B., Ch.B., 12; total, 134 (27 women).

Changes in Regulations, &c. (1) Inclusion of Hebrew in list of optional langs. taken for the *B.A. degree* at the Interm. standard and of principal subjects studied for a period of 2 yrs. at the Final standard. Eccl. Hist. was also inserted amongst the subsidiary Final subjects for which the period of study extends over 1 yr. only. The article which gave candidates who had failed at a Final examn. the privilege of presenting at the June examn. of the following year the same books and periods in which they had already been examined was deleted. (2) The M.A. and M.Sc. Ordinances were modified by laying down in more detail conditions under which *graduates of other approved Univs.* may be permitted to enter the Univ. and become candidates for the Master's without taking the Bachelor's Degree of this Univ. (3) A new clause was adopted whereby undergrads. of this Univ. pursuing an approved course in any of the Honours Schools may be allowed, on certain stated conditions, to count such periods of residence at other Univs. during their undergrad. course as equivalent

to residence at Leeds, as the Senate may from time to time determine. Candidates proceeding to the Honours School of Mod. Langs. and Lits. may thus complete a portion of the prescribed course at the Univ. of Caen. (4) Notice has been given to the Joint Matricn. Board (*v.* Appendix III) that, so far as concerns this Univ., the requirement that candidates for the Matricn. examn. in Med. should be required to take *Latin* shall cease to be operative on the expiration of 2 yrs.

Additions to Buildings. A 2-story building providing additional accommodation for Univ. Offices and the Educn. and Chem. Depts.; an addition to the students' dining-room; a house rented and furnished for use by men students for common rooms, reading and committee rooms, &c., and bath and dressing rooms; a further addition to Univ. Hall for women.

New Relations with other Bodies. A reciprocal arrangement with Bradford Technical College, under which students of the Univ. make use of the Practical Dye-house of the Coll., while Bradford students may attend certain lecture courses in the Univ. *See also* "Museums, &c. (Marine Lab.)," *and* "Univ. Extension."

Conferences with other Univs. have been held in connexion with the Federal superannuation scheme, a proposed 4 yrs. course of training for teachers, and a proposed new course of training for the profession of solicitor.

UNIVERSITY OF LIVERPOOL

[Established by Royal Charter dated July 15, 1903. Univ. College, Liverpool, which was founded by Royal Charter dated Oct. 18, 1881, admitted as a Coll. in the Victoria Univ., Manchester, in 1884, and invested with further powers by supplemental Charter dated Jan. 22, 1900, was by Liv. Univ. Act, 1903, merged in the Univ. of Liverpool.]

VISITOR	HIS MAJESTY THE KING.
CHANCELLOR	Rt. Hon. EARL OF DERBY, G.C.V.O., C.B., LL.D.
PRO-CHANCELLORS	J. W. ALSOP, B.A., President of the Council. Rt. Hon. Sir JOHN BRUNNER, Bart., LL.D.
VICE-CHANCELLOR	Sir ALFRED DALE, M.A., LL.D.
TREASURER	HUGH R. RATHBONE, M.A.
REGISTRAR	EDWARD CAREY, LL.B.
LIBRARIAN	J. SAMPSON, M.A., D.Litt.

PROFESSORS, LECTURERS, ETC.

ANATOMY

PATERSON, A. M., M.D. EDIN., F.R.C.S. — Derby Prof.

GOWLAND, W. P., M.D., B.S. LOND., M.R.C.S., L.R.C.P. — Senr. Demr. and Asst. Lectr.

DOUGLAS-CRAWFORD, D., M.B., C.M. EDIN., F.R.C.S. — Asst. Demr.

MC MURRAY, T. P., M.B., B.CH. BELF. — Asst. Demr.

DUNN, N., M.A., M.B., CH.B. ABERD. — Asst. Demr.

Applied and Surgical Anat.

DOUGLAS-CRAWFORD, D., M.B., C.M. EDIN., F.R.C.S. — Lectr.

Physical Anthropology

BROAD, W. H., M.D. — Lectr.

ANTHROPOLOGY, Social (v. also *Ethnog.*)

FRAZER, J. G., M.A., D.C.L., LITT.D., LL.D. CAMB., F.B.A. — Prof.

ARCHÆOLOGY, Classical* (v. also *Palæog.*)

BOSANQUET, R. C., M.A. CAMB., F.S.A. — Prof.

Egyptology — [Brunner Prof.

NEWBERRY, P. E., M.A. LIV.

Mediæval Archæol. — [Prof.

BARNARD, F. P., M.A. OX., F.S.A.

Methods and Practice of A.

GARSTANG, J., D.SC., M.A., B.LITT. OX., F.S.A. — Rankin Prof.

* The Univ. Inst. of Archæol. also provides for lectures in *Assyriology* by T. G. Pinches, LL.D. Lond.; in *Central American Archæol.* by T. W. Gann, M.D.; and in *Numismatics* by J. Grafton Milne, M.A. Ox.

ARCHITECTURE (v. also *Archæol., Civ. Design, Engin., Nav. Archit.*)

REILLY, C. H., M.A. CAMB., F.R.I.B.A. Roscoe Prof.

DOD, H. A., M.A. Studio Instr.

Building Materials

WHITBY, H. J., A.R.SAN.I. Instr. and Demr.

Ecclesiastical Archit. [Reader.

SCOTT, G. GILBERT, F.R.I.B.A.

History of Archit.

BUDDEN, L. B., M.A. Asst. Lectr.

Modelling

ALLEN, C. J. Recog. Teacher.

Reinforced Concrete [Lectr.

MARTIN, H. E. L., B.SC., A.M.I.C.E.

ASTRONOMY [Reader.

PLUMMER, W. E., M.A. OX., F.R.A.S.

BIOCHEMISTRY, v. *Chem.*

BIOLOGY, v. *Botany, Nat. History*

BOOKKEEPING

DE ZOUCHE, R. C., A.C.A. Lectr.

BOTANY [H. Gaskell Prof.

HARVEY-GIBSON, R. J., M.A. ABERD. AND EDIN., F.L.S.

BLACKWELL, ELSIE M., M.SC. Demr. and Asst. Lectr.

KNIGHT, MARGERY, M.SC. ,,

Plant Physiology [Lectr.

GREEN, J. R., M.A., SC.D., F.R.S.

CHEMISTRY (v. also *Metall.*)

Bio-chemistry

MOORE, B., M.A., D.SC. BE F., M.R.C.S., F.R.S. Johnston Prof.

Inorganic Chem.

BALY, E. C. C., M.SC., F.R.S., F.I.C. Grant Prof.

Organic Chem. [Lectr.

TITHERLY, A. W., D.SC., PH.D. HEID.

Physical Chem. [Brunner Prof.

LEWIS, W. C. MCC., M.A. BELF., D.SC.

HOLT, A., M.A. CAMB., D.SC. MANC. Reader.

Demrs. and Asst. Lectrs.

RULE, A., M.SC. MANC., PH.D. JENA

BENGOUGH, G. D., M.A. CAMB., D.SC., A.R.S.M.

THOMAS, J. S., M.SC.

KAY, F. W., M.SC. MANC., PH.D. BERL.

FARROW, F. D., M.A. NEW ZEALAND

JONES, E. G., M.SC. LIV., F.I.C.

CIVIC DESIGN [Assoc. Prof.

ADSHEAD, S. D., M.A., F.R.I.B.A.

ABERCROMBIE, L. P. Research Fellow and Lectr. (also Asst. Lectr. in *Building Construction*).

Landscape Design [Spl. Lectr.

MAWSON, T. H., HON. A.R.I.B.A.

CIVIC LAW

DOWDALL, H. C., M.A., B.C.L. OX., BAR.-AT-LAW Spl. Lectr.

CLASSICS, v. *Languages*

COMMERCIAL Theory and Practice

MONTGOMERY, J., M.A. Lectr.

DENTISTRY (v. also *Medicine—Mat. Med.*, and *Metall.*)

DOUGLAS-CRAWFORD, D., M.B., C.M., F.R.C.S. Tutor for *D.* students.

D. Anat., Histol., and Physiol.

WOODS, J. A., M.D.S., L.D.S. ENG. Lectr.

D. Mechanics

OSBORN, L., L.D.S. ENG. Lectr.

D. Surgery

GILMOUR, W. H., M.D.S., L.D.S. ENG. (Dir. of *D. Educn.*) Lectr.

Operative D. Surgery

BENNETTE, H. W. P., M.D.S., L.D.S. ENG. Lectr.

WOODS, E. C., L.D.S. ENG. Demr.

Clin. D. Surgery

EDWARDS, R., M.D.S., L.D.S. ENG., M.R.C.S. Lectr.

MANSELL, T., M.D.S., L.D.S. EDIN. ,,

Orthodontia

COUNCELL, E. L., B.D.S., L.D.S. ENG., M.R.C.S., L.R.C.P. Lectr.

ECONOMIC SCIENCE

GONNER, E. C. K., M.A. OX. Brunner Prof.

MACDONALD, R. A., M.A. Asst. Lectr.

EDUCATION

CAMPAGNAC, E. T., M.A. OX. Prof.

COLLIE, FRANCES A., M.A. WALES Lectr.

FORBES, K., M.A. OX. Lectr.

BESZANT, C. F. Asst. in *Method.*

Recog. Teachers in Edge Hill Training College:

HALE, MISS S. J. (Principal)

HOARE, MISS L. O'D., B.A.

ENGINEERING (v. also *Archit.* and *Nav. Archit.*)

WATKINSON, W. H., M.ENG., M.I.C.E., M.I.M.E., M.I.E.E. Harrison Prof.

MASON, W., M.SC. MANC., A.M.I.C.E. Lectr. (*Strength of Materials*), Asst. Lectr. and Demr.

SCHOLES, G. E., M.SC. MANC. Asst. Lectr. and Demr.

COSTON, E. P., B.SC. MANC., B.ENG. Asst. Lectr. and Demr.

MAWSON, H., B.SC.(ENG.) LOND., A.R.C.SC., A.M.I.C.E. Asst. Lectr. and Demr.

ENGINEERING, Civil [Prof.

PERROTT, S. W., M.A.I. DUB., M.I.C.E.

MARTIN, H. E. L., B.SC. LOND., A.M.I.C.E. (Lectr. in *Archit.*) Asst. Lectr. and Demr.

Dock and Harbour Engin.

LYSTER, A. G., M.ENG., M.I.C.E. Assoc. Prof.

WILTON, T. R., M.A. CAMB., A.M.I.C.E. Lectr.

Engin. Geology [Lectr.

ELSDEN, J. V., D.SC. LOND., F.G.S.

Municipal Engin.

BRODIE, J. A., M.ENG., M.I.C.E., M.I.M.E. Assoc. Prof.

Railway Engin.

ASPINALL, J. A. F., M.ENG., M.I.C.E., M.I.M.E. Assoc. Prof.

ENGINEERING Design and Drawing

ANDERSON, J. W., M.ENG., M.I.C.E., M.I.M.E. Lectr.

CLARK, J. J., B.ENG., A.M.I.C.E. Asst. Lectr. and Demr.

ENGINEERING, Electrical

MARCHANT, E. W., D.SC. LOND., M.I.E.E. David Jardine Prof.

Municipal Elec. Engin.

HOLMES, A. B., M.ENG., M.I.C.E., M.I.E.E. Assoc. Prof.

TEAGO, F. J., B.SC.DURH., A.M.I.E.E. Asst. Lectr. and Demr.

GILL, J. F., M.SC. MANC., B.ENG., A.M.I.M.E. Demr.

ENTOMOLOGY

NEWSTEAD, R., M.SC., F.R.S., F.E.S., A.L.S. Dutton Memorial Prof.

CARTER, H. F., S.E.A.C. DIPL., F.E.S. Asst. Lectr.

ETHNOGRAPHY (v. also *Anthrop.* and *Russ. Studies*)

FORBES, H. O., M.A., LL.D. ABERD. Reader.

FISHERIES, v. *Nat. History*

GEOGRAPHY, Political and Econ. (v. also *Russ. Studies*)

ANGELBECK, A., M.A. Tutor.

Regional Geography

ROXBY, P. M., B.A. OX. Lectr.

HISTOLOGY, v. *Physiol.*

HISTORY (v. also *Archæol. Palæog., Russ. Studies*)

MACKAY, J. M., M.A. OX., LL.D. ST. AND. Rathbone Prof.

JONES, W. GARMON, M.A. Asst. Lectr.

KELLEY, LILLIAN W., B.A. Research Fellow.

Ecclesiastical Hist.
DEWICK, E. C., M.A. CAMB. Recog. Teacher.
Local History
VACANT Reader.
Mediæval Hist.
COOPLAND, G. W. Lectr.
Modern Hist.
VACANT A. Geddes & J. Rankin Prof.
VEITCH, G. S., M.A., LITT.D. Lectr. in charge.
TURBERVILLE, A. S., M.A., B.LITT. OX. Lectr.
JONES, MARY E. M., M.A. Tutor.

HYGIENE
HOPE, E. W., M.D., D.SC. EDIN. Prof.
MUSSEN, A. A., B.A., M.D. DUB., D.P.H. Asst. Lectr.

LANGUAGES and Literature
Celtic
MEYER, K., M.A., PH.D. LEIP., LITT.D. WALES Prof.
Chinese
PARKER, E. H., M.A. MANC. Reader.
English Lang. and Philol.
WYLD, H. C. K., B.LITT. OX. Baines Prof.
English Lit.
ELTON, O., M.A. OX., D.LITT. DURH. King Alfred Prof.
CASE, E. H., B.A. LOND. Assoc. Prof.
WALLIS, J. P. R., M.A. Asst. Lectr.
PARTRIDGE, MISS S. F. Recog. Teacher.
HEALEY, MISS J., L.L.A. ST. AND. ,,
French
TERRACHER, L. A. J. Barrow Prof.
RENAULT, G. E., B.A., O.A. DIJON Asst. Lectr.
German
PETSCH, R., PH.D. WÜRZ. Prof.
COLLINSON, W. E., M.A. LOND. Asst. Lectr.
Greek
LEHMANN-HAUPT, C. F. F., PH.D. BERL., LL.D. GÖTT. Gladstone Prof.
ORMEROD, H. A., B.A. OX. Asst. Lectr.
Hebrew [Recog. Teacher.
BECK, W. E., B.A. LOND.
Hellenistic Greek
WARMAN, PRINCIPAL F. S. GUY, M.A., D.D. OX. Recog. Teacher.
HOWARD, R. W., B.A. ,,
Italian
VACANT Lectr.
Latin
POSTGATE, J. P., LITT.D. CAMB., F.B.A. Prof.
SMILEY, M. T., M.A. DUB. Asst. Lectr.
CHAPMAN, DOROTHY, M.A. ST. AND. Asst. Lectr.
ALMOND, ELEANOR M., B.A. LOND. Asst. Lectr.
SAMPSON, MISS M., B.A. LOND. Recog. Teacher.
Russian, v. *Russian Studies*
Spanish
FITZMAURICE-KELLY, J., LITT.D., F.B.A. Gilmour Prof.
Welsh
DAVIES, J. GLYN, M.A. Lectr.

LAW
Commercial Law, &c.
SPARROW, W. J., B.A., LL.D. LOND., BAR.-AT-LAW Prof.
Const. Law [Lectr.
BLEASE, W. L., LL.M., BAR.-AT-LAW
Criminal Law
LIAS, W. J., M.A. CAMB., BAR.-AT-LAW Lectr.
Equity, &c.
OWEN, O. W., M.A. CAMB. Lectr.
Internat. Law
THOMAS, H.H. JUDGE, B.A., LL.D. LOND. Prof.
Jurisprudence [Lectr.
FINDLAY, J., M.A. OX. (Tutor)
Personal Property
STEWART-BROWN, E., M.A. CAMB., BAR.-AT-LAW Lectr.
Real Prop. & Conveyancing, &c.
EMMOTT, G. H., M.A., LL.M. CAMB., BAR.-AT-LAW Q. Victoria Prof.
BAXTER, R. W., BAR.-AT-LAW Lectr.

MATHEMATICS

CAREY, F. S., M.A. CAMB. Prof.
CARSON, G. ST. L., B.A. CAMB., B.SC. MANC. Reader.
HARGREAVES, R., M.A. Reader.
SHARPE, F. T., M.A. CAMB. Lectr.
PROUDMAN, J., B.SC. Asst. Lectr.
Philos. and Hist. of Maths.
YOUNG, W. H., M.A., SC.D. CAMB., F.R.S.* Prof.

MEDICINE and Surgery

Bacteriology
BEATTIE, J. M., M.A. NEW ZEALAND, M.D., C.M. EDIN. Prof.
ALEXANDER, D. M., M.D. Asst. Lectr.
Dermatology [Lectr.
LESLIE-ROBERTS, H., M.D. EDIN.
Dis. of Children
DAVIDSON, P., M.A., M.B., C.M. EDIN. Lectr.
Diseases, Infec., and Vaccin.
ROBERTS, N. E., M.B., C.M., D.P.H. EDIN. Lectr.
RUNDLE, C., M.D. LOND., M.R.C.S., L.R.C.P., D.P.H. Asst. Lectr.
Diseases, Mental
COWEN, T. P., M.D., B.S., M.R.C.S., L.R.C.P. Lectr.
Diseases, Specific
WILSON, F. P., M.D., M.SC. Lectr.
Forensic Medicine [Prof.
BUCHANAN, R. J. M., M.D., F.R.C.P.
MACFALL, J. E. W., M.D., D.P.H. *Toxicol.* Demr.
Gynæcology, Clin.
GRIMSDALE, T. B., B.A., M.B. CAMB., M.R.C.S. Lectr.
Laryngology
VACANT Lectr.
Mat. Med. and Pharm.
MARSDEN, P. H., F.C.S. (Lectr. in Dental Mat. Med.) Lectr.
Medicine [Prof.
GLYNN, T. R., M.D. LOND., F.R.C.P.
Medicine, Clinical
BLIGH, J. MURRAY, M.D. Lectr.
BRADSHAW, T. R., B.A., M.D. DUB., F.R.C.P. Lectr.
BUSHBY, T., M.B., C.M. EDIN., M.R.C.P. Lectr.
GULLAN, A. G., M.D. LOND., F.R.C.S., M.R.C.P. Lectr.
HICK, P., M.D., B.S. LOND. Lectr.
MACALISTER, C. J., M.D. EDIN., F.R.C.P. Lectr.
ROBERTS, J. LL., M.D., B.S., B.A., B.SC. LOND., F.R.C.S., M.R.C.P. Lectr.
THE PROFS. OF *Forensic Med.* AND *Therap.* AND LECTR. IN *Neuro-Path.* Lectrs.
Midwifery and Gynæc.
BRIGGS, H., M.B., C.M. EDIN., F.R.C.S. Prof.
JONES, W. J. BENNETT, M.D. EDIN., M.R.C.S., L.R.C.P. Demr.
Ophthalmology
BROWNE, E. A., CH.M., F.R.C.S. EDIN. Lectr.
Pathology [Holt Prof.
GLYNN, E. E., M.A., M.D., C.M. CAMB., M.R.C.S., M.R.C.P.
WARRINGTON, W. B., M.D. LOND., F.R.C.P. Lectr. in *Neuro-Pathology.*
Asst. Lectrs. and Demrs.:
MACKARELL, W. W., M.D., D.P.H., D.T.M., M.R.C.S., L.R.C.P.
HARCOURT, R. E., M.D., M.CH. IRE., F.R.C.S.
Pharmacology
VACANT Lectr.
Surgery
PARKER, R., M.B., B.S. LOND., F.R.C.S. Prof.
Surgery, Operative
MONSARRAT, K. W., M.B., C.M., F.R.C.S. EDIN. Lectr.
Surgery, Orthopædic [Lectr.
JONES, R., CH.M., F.R.C.S. EDIN.
Surgery, Practical [Lectr.
KELLY, R. E., M.D., B.SC., F.R.C.S.

* Appointed Hardinge Prof. in Calc., but retains chair in Liv.

Surgery, Regional
THOMAS, W. T., CH.M., F.R.C.S. Prof.
Clinical Surgery
BICKERSTETH, R. A., M.A., M.B., B.C. CAMB., F.R.C.S. Lectr.
DOUGLAS-CRAWFORD, D., M.B., C.M. EDIN., F.R.C.S. Lectr.
EVANS, A. J., F.R.C.S. EDIN. ,,
HARRISSON, D., CH.M., F.R.C.S. EDIN. Lectr.
JONES, T. C. L., F.R.C.S. ,,
LARKIN, F. C., F.R.C.S. ,,
MURRAY, R. W., F.R.C.S. ,,
NEWBOLT, G. P., M.B. DURH., F.R.C.S. Lectr.
THE PROF. OF *Regional Surg.* AND LECTRS. IN *Op.* AND *Orthop. Surg.* Lectrs.
Therapeutics [Prof.
ABRAM, J. HILL, M.D. LOND., F.R.C.P.
Tropical Med.
STEPHENS, J. W. W., M.D. Sir Alfred Jones Prof.
THOMAS, H. W., M.D., C.M. Asst. Lectr.
FANTHAM, H. B., D.SC., B.A. ,,
BLOOD, MAJOR J. F., M.D., M.CH. Hon. Lectr.
PROUT, W. T., M.B., C.M.G. ,,
THE PROFS. OF *Hygiene* AND *Path.* Hon. Lectrs.
YORKE, W., M.D. Director of Trop. Research at Runcorn.
BLACKLOCK, B., M.D., D.P.H. Research Demr.
Tropical Sanitation [Prof.
ROSS, SIR RONALD, K.C.B., F.R.S., M.D., F.R.C.S., D.SC., LL.D.
Vaccination, v. *Diseases, Infec.*

METALLURGY
BENGOUGH, G. D., M.A. CAMB., D.SC., A.R.S.M. (Lectr. in *Dent. Metall.*) Lectr.

NATURAL HISTORY
HERDMAN, W. A., D.SC. EDIN., F.R.S., F.L.S., F.R.S.E. Derby Prof.
LAURIE, R. D., M.A. OX. (Lectr. in *Embryol.*) Demr. and Asst. Lectr.
BURFIELD, S. T., B.A. CAMB. ,,
Aquiculture [Hon. Lectr.
JOHNSTONE, J., B.SC. LOND.
Sea Fisheries
JENKINS, J. T., B.SC. LOND., D.SC. WALES, PH.D. KIEL, BAR.-AT-LAW Hon. Lectr.
Economic Ichthyology
SCOTT, A., A.L.S. Hon. Lectr.
Economic Entomology
NEWSTEAD, PROF. R., M.SC., F.R.S., F.L.S., F.E.S. Hon. Lectr.
Marine Biology
CHADWICK, H. C., A.L.S. Hon. Lectr.

NAVAL ARCHITECTURE
ABELL, W. S., M.ENG., R.C.N.C. (ret.), M.I.N.A. Alex. Elder Prof.
BALFOUR, W. M., B.SC. GLAS. Asst. Lectr. and Demr.

PALÆOGRAPHY and Diplomatics
TWEMLOW, J. A., B.A. OX. Lectr.

PHILOLOGY, v. *Langs.*

PHILOSOPHY
MAIR, A., M.A. EDIN. Prof.
HANDYSIDE, J., M.A. OX. Lectr.
Exper. Psychology
VACANT Lectr.

PHYSICS (v. also *Chem.*, *Phys.*)
WILBERFORCE, L. R., M.A. CAMB. Lyon Jones Prof.
VACANT Lectr.
Demrs. and Asst. Lectrs.:
STEVEN, A. I., M.A., B.SC. GLAS.
BUCKLEY, J. C., B.SC.
HALSALL, R., B.SC. Asst. Demr.

PHYSIOLOGY and Histology
VACANT George Holt Prof.
VACANT Demr.
MOTTRAM, V. H., M.A. Asst. Lectr. and Senr. Demr.

KENNON, R., M.B., CH.B., M.R.C.S., L.R.C.P. Fellow & Junr. Demr.

PSYCHOLOGY, v. *Philosophy*

RUSSIAN STUDIES

Russ. Hist., Lang. and Lit.

PARES, B., M.A. CAMB. Bowes Prof.

Ethnog. of Russ. Empire

WILLIAMS, H. W., PH.D. MUN. Hon. Research Fellow.

W. Slavonic Hist. and Lit.

BOSWELL, A. B., B.A. Research Fellow.

Russ. Hist.

VACANT Lectr.

Russ. Lang. [Asst. Lectr.

TROPHIMOFF, M. V., B.A. ST. PET.

Russ. Lit.

VACANT Asst. Lectr.

SOCIAL SCIENCE

Social Ethics

THE PROF. OF *Philos.* Lectr.

SIMEY, MISS E., B.A. Lectr.

Local Administration

RATHBONE, MISS E. F., M.A. Lectr.

MELLY, MISS F. E. Lectr.

Poor Law History, &c.

MACADAM, MISS E., M.A. Lectr.

VETERINARY MEDICINE

SHARE-JONES, J., M.SC., F.R.C.V.S. *Vet. Anat. and Surg. and Meat Inspection.*

HOLMES, R. P. *Vet. Anat.*

LLOYD, G. *Vet. Anat.*

PUGMIRE, S., B.SC. *Vet. Anat.*

ELAM, T. A. *Vet. Anat.*

JACKSON, S., M.R.C.V.S. *Stable Management and Clin. Med. and Surg.*

SUMNER, H., M.R.C.V.S. *Stable Management and Vet. Med.*

PILLERS, A. W. NOËL, F.R.C.V.S. *Path. and Parasitology.*

JONES, T. EATON, F.R.C.V.S. *Clin. Med. and Surg.*

ZOOLOGY, v. *Entom., Nat. Hist.*

CHANGES IN STAFF

Bonnier, C., Prof. of French, resigned.
Carey, E., apptd. Registrar *vice* Hebblethwaite.
Carson, G. St. L., Reader in Maths.*
Coopland, G. W., Lectr. in Mediæv. Hist.*
Donnan, F. G., Prof. of Phys. Chem., resigned on apptmt. to Chair of Chem. in Univ. Coll., Lond.
Hargreaves, R., Reader in Maths.*
Hebblethwaite, Prof. P., Registrar, resigned.
Lewis, W. C. McC., apptd. *vice* Donnan.
Londini, The Chev., Bursar and Lectr. in Italian, deceased.
Muir, Ramsay, Prof. of Mod. Hist., resigned on apptmt. to Chair in Manc.
Ross, Sir R., Prof. of Trop. Med., resigned, and apptd. Prof. of Trop. San.*
Stephens, J. W. W., apptd. *vice* Ross.
Térracher, L. A., apptd. *vice* Bonnier.
Thomas, W. Thelwall, Prof. of *Regional Surg.**
Williams, O. T., Lectr. in *Pharmacol.*, deceased.
Young, W. H., Prof. of the *Philos.* and *Hist. of Maths.**

* New appointments.

GENERAL INFORMATION

FACULTIES. Arts, Science, Law, Medicine, and Engineering. There are Boards of Legal, Dental, and Vet. Studies, Schools or Depts. of Architecture, Civic Design, Commerce, Education, Social Science and Training for Social Work, Local History and Records, Russian Studies, Public Health, Tropical Medicine, Ophthalmic Surgery, Pharmacy, and Experimental Medicine, and a Univ. Training Coll.

MATRICULATION. Candidates for admission must be not less than 16 yrs. of age, and if entering for a degree must have passed the matricn. examn. of the Joint Board (*v.* Appendix III) or its equivalent.

UNIV. TERMS, 1913–14. Autumn begins Oct. 7; Lent, Jan. 6; Summer, April 21.

DEGREES, &c. *Arts*—B.A., B.Arch. (Architecture), B.Com.Sc., M.A., Litt.D., Diploma and Certif. in Architecture, Certif. in Archit. Design, Diploma and Certif. in Civic Design, Diploma in Education, Certif. in Com. Sc., Certificates in Separate Arts subjects. *Science*—B.Sc., M.Sc., D.Sc. *Medicine*—M.B. and Ch.B., M.D., Ch.M., M.H. (Hygiene), Diplomas in Pub. Health, Trop. Med., Anatomy, Bacteriology, Biochemistry, and Parasitology. In the School of Dental Surgery—B.D.S., M.D.S., L.D.S. In the Vet. School—Dip. in Vet. Hygiene. *Law*—LL.B., LL.M., LL.D. *Engineering*—B.Eng., M.Eng., D.Eng., Diploma and Certif. in Eng.

Before being admitted to any Univ. Degree a student must, unless partially exempted on account of study in another Univ., have attended approved courses of study in the Univ. or recognized courses in an affiliated institn. (*see* list *below*) during 2 sessions for the post-grad. degree of M.H.; 3 sessions for the B.A., B.Com.Sc., B.Sc., LL.B., B.Eng.; 4 for the B.D.S.; 5 for the B.Arch., M.B., and Ch.B. Students are advised and assisted in arranging their courses by the Deans of Faculties (Arts—Prof. Campagnac; Science—Prof. Harvey-Gibson; Law—Prof. Emmott; Medicine—Prof. Monsarrat; Engin.—Prof. Anderson).

EVENING COURSES FOR DEGREES IN ARTS. The course for the Bachelorship extends over 5 yrs., reducible to 4 in consideration of attendance during 1 or more years at day courses. Minimum age, 19.

SCHOOL OF ARCHITECTURE. Prof. Reilly is in charge of the School. Prof. Adshead is in charge of the Dept. of Civic Design. The School is one of the five recognized by the Board of Archit. Education of the R.I.B.A. The teaching of Design is adapted from the methods of the Ecoles des Beaux-Arts at Paris and the American Schools of Archit. The Dept. of Civic Design has been established to supply a knowledge of the supplementary subjects which Town Planning connotes. The lectures are open to all interested in the subject and not only to students taking the whole course.

Department of Commerce. The courses for the Bachelorship are designed with a view to (1) General Business; (2) Banking, Insurance, Accountancy; (3) Transport, Railways, Shipping; (4) Consular Service. The Certificate course is for students of not less than 17 yrs. of age desiring a specialized liberal training for a consular, mercantile, or allied career. It extends over 2 yrs., reducible to 1 in consideration of a course in Commerce in a recognized institution.

Institute of Archæology. Divided into Classical, Egyptian, and Mediæval Depts.; provides specialized teaching for students in the Faculty of Arts and others; encourages research upon ancient sites; provides collections of antiquities so arranged as to be of direct use in the teaching of History, Classics, Architecture, Sculpture, and Applied Arts. There are 4 chairs in Archæol., as well as 4 special lectureships.

School of Social Science and of Training for Social Work. A centre for investigation in Social Economics. The courses are designed with a view to the needs of the younger workers in local societies; of candidates for the ministry and the junior clergy; and those connected with the administration of relief. Students able to devote 3 yrs. to study can take a degree course in the Univ., comprising, mainly, subjects dealing with social and economic theory, and, utilizing the practical knowledge gained from the courses offered by the School, proceed in their 4th yr. to the M.A. degree and School diploma. Inquiries should be addressed to Miss E. Oliver Jones, Victoria Women's Settlement, 294 Netherfield Road, Liverpool.

School of Local History and Records provides training in the study and editing of the hist. and records of the city and adjoining counties. (Hon. Secy., J. A. Twemlow, B.A.)

School of Russian Studies. Special attention is given to qualifying Englishmen for posts connected with Russian trade. The School aims at publication of results of researches in Russia, and of translations of important Russian books, and issues the *Russian Review* quarterly. (Secretaries, Prof. B. Pares, M.A., and J. Montgomery, M.A.)

School of Hygiene. Candidates for the M.H. must be grads. of Liv. or of some other Univ. recognized for the purpose, and must have taken the course in Hygiene in Liv. Univ. extending over 2 yrs. (subject to exemption under certain conditions from the 1st year). The City Fever Hospitals are always supplied with zymotic disease in every phase. Under the Med. Officer of Health there are about 95 Inspectors. The trade of the Port involves frequent importations of infection.

Clinical Studies are conducted in four General and five Special Hospitals, containing 1076 beds. (Secy. of the Board of Clin. Studies, F. A. G. Jeans, M.A., M.B., F.R.C.S.)

School of Pharmacy. The courses prepare for the examns. of the Pharmaceutical Society of Great Britain.

School of Tropical Medicine. (Secy., A. H. Milne, C.M.G., B.A., B. 10 Exchange Buildings, L'pool.) This was founded in 1898 and received its Charter of Incorporation in 1905. It is recognized by Govt. for the training of officers for medical work in the Tropics. It conducts original researches and organizes prophylactic measures. It has sent out 30 expeditions to the Tropics to investigate or advise, and has published 21 memoirs and now publishes *Annals of Trop. Med. and Parasitology*. The staff (*v.* List of Profs., &c.—Med., Trop.) includes four Profs. as well as Lectrs. and Assts. The course for the Diploma covers 13 weeks. A special ward of 12 beds is set apart for Trop. Diseases in the Royal Southern Hospital close to the docks.

School of Veterinary Medicine (Secy. of the Board of Vet. Studies, J. Share-Jones, M.Sc., F.R.C.V.S.). The courses prepare for the examns. (held at the Univ.) of the R.C.V.S. The course for the membership extends over 4 yrs. The Univ. Diploma is awarded to candidates who, possessing the registrable qualification to practise and having attended approved courses during 6 mos., pass the prescribed examn.

Law. The courses prepare students for the examns. of the Univ., of the Council of Legal Education, and of the Law Society.

Engineering. The courses leading to the Bachelorship afford training for the vocations of Engineer, Naval Architect, Architect and Surveyor. The Certif. in Engin. requires a 2 yrs. course. A 4th yr. of study is arranged leading to the examns. in the Honours Schools (Mech., Elec., Civil, Marine, Naval Archit.) and the Diploma.

Post-grad. Courses. The qualifications for admission to the M.A. and other higher degrees of students who have graduated or conducted researches in this Univ., and of those who come from other Univs. for advanced study or research, are similar to those prescribed by Manchester (*q.v.*), but the M.Eng. cannot be taken until 3 yrs. after the B.Eng. The Master's degree may be obtained by research as well as by examn. Advanced study and research are among the conditions of tenure of all fellowships and almost all the post-grad. scholarships and studentships. The Univ. assists research students by special grants for maintenance and apparatus.

Training of Teachers. The Diploma is intended for grads. in Arts or Science, and is designed to meet the requirements of the Board of Education regarding the Training of Teachers for Secondary Schools. The Univ. Training Coll. is for Teachers in Elem. Schools. It is a Dept. of the Univ. recognized by the Board of Educn. Candidates for admission must ordinarily be over 18 years of age and enter either as 4 yrs. students to follow a degree course or as certificated students or 1 yr.'s training.

Scholarships for Graduates. Research fellowships and scholarships of the aggregate value of upwards of £2000 are offered annually. Most of them are for research in medical or other scientific subjects and are open to students of the Univ. of 2 or more years standing. Six of £100, each tenable for 1 yr. and renewable, are open to any qualified medical student. One of the same value is open to members of Colonial Univs. and Med. Schools or Colonials possessing British qualifications, and one to members of Univs. and Med. Schools in the U.S.A. or other foreign schools. The Stanley Jevons studentship of £70, tenable for 2 yrs. (offered sexennially), is open to persons qualified for research in Econ. Science.

Appointments. A register of grads. containing full information as to their after careers is being prepared. An Apptmts. Committee exists, and is prepared to submit to employers the names of suitable men and women, grads. of the Univ., for posts of varied types.

Women Students and Officers. The Charter provides (clause 27) that "women shall be eligible for any office in the Univ. . . . and all degrees and courses of study shall be open to women subject to such conditions and regns. as Statutes may prescribe."

Residential Facilities. Univ. Hall, Fairfield (for women), is situated in its own grounds about a mile from the Univ. Ashton Rathbone Hostel, 13 Croxteth Road, is for men students of the Univ. Training College. A Hostel has been opened by the Institut Commercial de Paris, at 36 Prince's Road, for French students attending courses in the Dept. of Commerce.

Library (upwards of 80,000 vols.) includes Rylands Collection of early works on Geog. and Astron., over 100 Incunabula, the final sheets of the *Constitutiones* of Clement V, printed at Mainz in 1460, &c.

Museums and Laboratories. Anat.; Archæol.—Classical and Oriental (including a unique Hittite Collection); Archit.; Bacteriology; Biochem.; Botany; Chem. (including separate rooms for organic operations and advanced work of special character, such as gas and water analysis, and a Chem. Museum); Physical and Electro-Chem.; Electricity (Applied); Engin. (including numerous steam, oil, and gas engines and steam turbines, and facilities for aerial motor and propeller testing and other wind experiments); Hygiene; Mat. Med. (over 1000 specimens); Experimental Medicine; Tropical Medicine (including Museum with preparations illustrating Trop. Diseases; Research Labs. at Runcorn, 16 miles from Liv., with infected animal farm); Obst. and Gynæc.; Path. (Lab. has fully equipped places for 70 students, Museum over 3000 specimens); Phys.; Physiol. and Histol.; Vet. Anat. and Path.; Zool. (including a Sea Fisheries Lab. and Sea Fisheries, Local, Geol. and Embryol. and Genetics Collections). The Univ. has a right to the use of one of the workrooms of the Port Erin (Isle of Man) Marine Biol. Lab.

The University Extension Board has 4 standing Committees in charge of (1) Local lectures—16 centres; (2) Tutorial Classes for workpeople—3 yrs. courses are provided at Accrington, Birkenhead, Lancaster, and L'pool; there is a staff lectr.; (3) examination of students in Training Colls.; (4) the Gregson Memorial Institute and Museum in Garmoyle Road, Smithdown Road, L'pool, intended as a centre for public lectures, the housing of Literary and Scientific Clubs, and the furtherance of higher education in the district.

Publications. *Calendar*, pubd. in Jan., price 1s.; *Annals of Trop. Med. and Parasitology*, quarterly—annual subs., 22s. 6d.; *Biochem. Journal*; *Annals of Archæol. and Anthrop.*, quarterly—annual subs. 10s. 6d.; Committee for Excavation and Research in Wales and the Marches, *1st Annual Report*, 1908-9; *Town Planning Review*, quarterly, 2s. 6d.; *Engin. Soc. Journal*, three times a year—annual subs., 4s. 6d.; *Public Inaugural Lectures*; various special pamphlets.

Affiliated Colleges. For the whole or part of the privileges of Clauses 4 and 5* of Ordinance XXIX—St. Aidan's College, Birkenhead: *Principal*, Rev. F. S. G. Warman, M.A., D.D.

For the whole or part of Clause 4*—Edge Hill Training College: *Principal*, Miss S. J. Hale; Mount Pleasant Training College: *Principal*, Miss E. M. Bellord; Harris Institute, Preston: *Principal*, T. R. Jolly, F.C.I.S.

THE YEAR 1912-13

Benefactions Received (in the preceding year). Donations for general and special purposes, including £10,000 for the Dutton Memorial Chair of Entom., amounting to about £30,000.

Special Events. In connexion with the State visit of Their Majesties the King and Queen to L'pool on July 11, 1913, the Univ. presented a loyal address to H.M. the King.

New Departments and Posts. Chairs of Tropical Sanitation, of Regional Surgery, of Parasitology, and of the Philos. and Hist. of Maths., two Readerships in Maths. and a Lectureship in Mediæval Hist. were instituted.

* Ordinance XXIX, clause 4—". . . students who have attained the age of 17 yrs. and have passed the Matricn. Examn. of the Univ., or . . . examn. exempting . . . shall be allowed to attend at any such Coll. or Institn. a part or the whole of a course of study approved by the Senate of the Univ. as qualifying in part or in whole for exemption from the 1st yr. of attendance upon courses of study in the Univ. . . ."

Clause 5—"If in any subject . . . instruction be not provided by the Univ., students of an affiliated Coll. or Institn. . . . may attend at such . . . courses . . . approved by the Senate, and may present themselves for examn. in these subjects, provided that the attendance so offered by any student shall not include more than half of the whole course of study required by the Univ. at this stage."

Number of Students. Full-time students preparing for the Bachelorship or Diploma examns., 849 (including 257 women); Bachelor students preparing for the Master's or Doctor's degree, 89 (26 women); Masters and other Research students or Fellows (not being teachers) engaged in Research, 107 (10 women); students continuing study or Research in Europe or America, 3; part-time students preparing for Diplomas, 116 (7 women); occasional students, 151 (28 women); evening, 316 (17 women).

Honorary Degrees Conferred. *LL.D.*—W. Oulton. *Litt.D.*—Prof. John MacCunn, Mrs. John Richard Green, Prof. C. E. Vaughan. *D.Sc.*—Prof. J. Norman Collie. *M.A.*—Miss Fanny L. Calder, Mrs. John MacCunn, Henry Peet.

Other Degrees. B.A., 69 (including 52 women); M.A., 27 (11 women); Litt.D., 1; LL.B., 5; M.B., Ch.B., 13 (2 women); Ch.M., 1; M.D., 8 (1 woman); M.D.S., 1; M.H., 1; B.Sc., 62 (24 women); M.Sc., 19 (4 women); D.Sc., 1; B.Eng., 18; M.Eng., 3; D.Eng., 1; B.Com.Sc., 1; Dipl. Educn., 12 (11 women); Dipl. Dent. Surg., 1; Certif. Archit., 10; Certif. Comml. Sc., 4; Certif. Engin., 7.

Alteration of Curriculum. A Degree with Honours may now be obtained in Mediæval as well as in Ancient and Modern History.

A new Building to house the Faculty of Arts is being erected at a cost of £30,000.

Additions to Amenities. The women's wing of the Students' Union and the Gilmour Debating Hall have been completed.

Additions to Library. A collection of books with cases presented by the Executors of the late Mr. William Noble.

UNIVERSITY OF LONDON

[Constituted by Charter, 1836. Reconstituted in 1900 under Act 61 and 62 Vict., ch. 62, 1898.]

Visitor	His Majesty the King in Council.
Chancellor	Rt. Hon. Earl of Rosebery, K.G., K.T., D.C.L., &c.
Vice-Chancellor	W. P. Herringham, M.D., B.A., F.R.C.P., M.R.C.S.
Chairman of Convocation	Sir Edward H. Busk, M.A., LL.B.
Principal	Sir Henry A. Miers, M.A., D.Sc., F.R.S.
Academic Registrar	P. J. Hartog, M.A., B.Sc., L.-ès-Sc.
Registrar of the Council for External Students	A. Milnes, M.A.
Registrar of the University Extension Board	J. Lea, M.A.
Secretary to the Senate	P. M. Wallace, M.A.
Secretary to the Finance Committee	W. K. Hill, B.A.
Superintendent of Examinations	R. Roscoe, B.A.
Goldsmiths' Librarian	R. A. Rye
Public Orator	Prof. E. A. Gardner, Litt.D., M.A.
Representative in Parliament	Sir Philip Magnus, B.A., B.Sc.

INCORPORATED COLLEGES, SCHOOLS OF THE UNIVERSITY, AND INSTITUTIONS HAVING RECOGNIZED TEACHERS

(Opposite each is shown the index letter or letters or number by which the Institution is referred to in the subsequent part of this section. Information concerning them is given on p. 277 *et sqq.*)

INCORPORATED COLLEGES

UNIVERSITY COLL.	U.
KING'S COLL.	K.
KING'S COLL. FOR WOMEN	KW.

SCHOOLS OF THE UNIVERSITY

IMPERIAL COLL. OF SCIENCE AND TECHNOLOGY	Im.
ROYAL HOLLOWAY COLL.	Ho.
BEDFORD COLL. FOR WOMEN	BW.
EAST LONDON COLL.	EL.
LONDON SCHOOL OF ECONOMICS	E.
S.E. AGRIC. COLL., WYE	Ag.
WESTFIELD COLL.	Wf.
LONDON DAY TRAINING COLL.	Tr.
NEW COLL., HAMPSTEAD	N.
HACKNEY COLL., HAMPSTEAD	H.
REGENT'S PARK COLL.	R.
KING'S COLL. THEOL. DEPT.	KT.
WESLEYAN COLL., RICHMOND	WR.
ST. JOHN'S HALL, HIGHBURY	J.
ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL	B.
ST. THOMAS'S HOSPL. MED. SCH.	T.
WESTMINSTER HOSPL. MED. SCH.	W.
GUY'S HOSPL. MED. SCH.	G.
ST. GEORGE'S HOSPL. MED. SCH.	SG.
LONDON HOSPL. MED. COLL.	L.
MIDDLESEX HOSPL. MED. SCH.	M.
CHARING CROSS HOSPL. MED. SCH.	C.
LONDON (R.F.H.) SCH. OF MED. FOR WOMEN	LW.
UNIV. COLL. HOSPL. MED. SCH.	UM.
KING'S COLL. HOSPL. MED. SCH.	KM.
ST. MARY'S HOSPL. MED. SCH.	SM.
LONDON SCH. OF TROP. MED.	TM.
LISTER INST. OF PREVENTIVE MEDICINE	LI.
ROYAL ARMY MED. COLL.	AM.
ROY. DENT. HOSP. AND LOND. SCH. OF DENT. SURG.	D.
NAVAL MED. SCH., GREENWICH	NM.

INSTITUTIONS HAVING RECOGNIZED TEACHERS

1 GOLDSMITHS' COLL.*
2 BATTERSEA POLYTECHNIC.
3 BIRKBECK COLL.
4 CITY OF LONDON COLL.
5 FINSBURY TECHNICAL COLL.
6 JEWS' COLL.
7 NORTHAMPTON POLYT. INST.
8 NORTHERN POLYT. INST.
9 ROYAL VETERINARY COLL.
10 SIR JOHN CASS TECH. INST.
11 SOUTH-WESTERN POLYT. INST.
12 WEST HAM MUNICIPAL TECH. INST.
13 WOOLWICH POLYTECHNIC.
14 MARIA GREY TRAINING COLL.
15 ST. MARY'S COLL., PADDINGTON.
16 DATCHELOR TRAINING COLL.
17 BOROUGH ROAD COLL., ISLEWORTH.
18 ST. JOHN'S COLL., BATTERSEA.
19 ST. MARK'S COLL., CHELSEA.
20 ROYAL ACADEMY OF MUSIC.
21 ROYAL COLL. OF MUSIC.
22 TRINITY COLL. OF MUSIC.
23 GUILDHALL SCH. OF MUSIC.
23*a* PHYSIOL. LAB. OF THE UNIV.*
24 BETHLEM ROYAL HOSPL.
25 HOSPL. FOR CONSUMPTION.
26 HOSPL. FOR SICK CHILDREN.
27 NATIONAL DENTAL COLL.
28 NAT. HOSPL. FOR PARALYSED AND EPILEPTIC.
29 ROYAL LOND. OPHTHALMIC HOSPL.
30 SCH. OF PHARMACY.

* Incorporated in the Univ.

PROFESSORS, READERS, LECTURERS, ETC.

(The Teaching of the Univ. is organized under 3 categories: (1) conducted by the Univ. itself; (2) conducted by the several "Schools of the Univ."; (3) conducted at the other Institns. at which there are "Recognized Teachers of the Univ." In the following list the Institns. (*see* list *above*) in which the teaching is given are indicated by means of the index symbols placed after the designations of the teachers. The teachers in any School of the Univ. do not thereby become Teachers of the Univ. unless they have been individually recognized as such. Teachers not so recognized and those to whom only probationary recognition has been granted are not included in the following list.)

ACCOUNTANCY [Reader E.
DICKSEE, L. R., M.COM. BIRM., F.C.A.

ADMINISTRATION, v. *Public*

AGRICULTURE
Agric. Zoology [Prof. Ag.
THEOBALD, F. V., M.A. CAMB.
Estate Management and Surveying
HAINES, A. H. J. Ag.
Mycology, v. *Botany*

ANATOMY
CAMERON, J., M.D., CH.B. EDIN., D.SC. ST. AND.* M.
FRAZER, J. E. S.† SM.
GREENE, W. H. C., B.A., M.B., B.C. CAMB.† SM.
JAFFREY, F.,† F.Z.S. SG.
JONES, F. W., D.SC., M.B., B.S.,* F.Z.S. LW.
MACPHAIL, A., C.M., M.B. GLAS. B.
PARSONS, F. G.,† F.Z.S. Prof. T.
STEWARD, F. J., M.S., M.B.† G.
THANE, G. D., LL.D. EDIN., F.R.C.S., F.Z.S. Prof. U.
WATERSTON, D., M.A., M.D., C.M. EDIN., F.R.C.S.E., F.R.S.E. Prof. K.
WRIGHT, W., D.SC. BIR., M.B., CH.B. MANC.† Prof. L.
Morbid Anatomy
SHATTOCK, S. G., F.R.C.S. Prof. T. (also recog. in *Bact.* and *Path.*).

* L.R.C.P., M.R.C.S.

ANTHROPOLOGY
DERRY, D. E., M.B., CH.B. EDIN. U.

ARCHÆOLOGY (v. also *Classics*
GARDNER, E. A., M.A., LITT.D CAMB. Yates Prof. U
Assyrian
KING, L. W., M.A. CAMB., F.S.A. K.
Egyptology
PETRIE, W. M. FLINDERS, D.C.L. OX., LL.D. ABERD., LITT.D., PH.D., F.B.A., F.R.S. Edwards Prof. U.

ARCHITECTURE
SIMPSON, F. M., F.R.I.B.A. Prof. U.
STRATTON, A. J., F.R.I.B.A., F.S.A. U.
WILKINSON, L., A.R.I.B.A. U.
Archit. and Construction
SMITH, R. ELSEY, F.R.I.B.A. U.

ART (*Fine Art*) [U.
BROWN, F. Slade Prof. of Fine Art
FRY, R. E., B.A. CAMB. (*Hist. of A.*) U.
MARRIOTT, F., A.R.C.A., A.R.E. I.
RUSSELL, W. W. U.
THOMAS, J. H., M.A. (*Sculpture*) U.
THOMSON, G. (*Drawing* and *Painting*) BW.
TONKS, H. U.

ASTRONOMY, v. *Physics*

BIOCHEMISTRY
HARDEN, A., D.SC. MANC., PH.D. ERL., F.R.S. Prof. LI.

† L.R.C.P., F.R.C.S.

BIOLOGY

ASSHETON, R., M.A., SC.D. CAMB. G.
GATES, R. R., B.SC. MC. G., PH.D. CHIC., F.L.S. T.
MUDGE, G. P., A.R.C.S., F.Z.S. L, LW.
RIDEWOOD, W. G. (v. *Zool.*) SM.
SHORE, T. W., M.D., B.SC., L.R.C.P., M.R.C.S. B.
TIMS, H. W. M. (v. *Zool.*) 9.
UNTHANK, H. W., B.A., B.SC. 3.

BOTANY

BENSON, MISS M. J., D.SC. Prof. Ho.
BLACKMAN, V. H., M.A., SC.D. CAMB., F.R.S. Im.
BOTTOMLEY, W. B., M.A. CAMB., PH.D., F.L.S., F.C.S. Prof. K,
CAVERS, F., D.SC., A.R.C.S. 1.
CLARKE, LILIAN J., B.SC., F.L.S. 2.
DE FRAINE, ETHEL L., D.SC., F.L.S. 2.
DELF, ELLEN M., N.SC.T. CAMB., B.A. DUB. Wf,
DRABBLE, F., D.SC., A.R.C.S., F.L.S. 8.
FARMER, J. B., M.A., D.SC. OX., F.L.S., F.R.S. Im,
FRITSCH, F. E., D.SC., PH.D. MUN., F.L.S. EL,
GROOM, P., M.A. OX. AND CAMB., D.SC. OX., F.L.S. Im,
GWYNNE-VAUGHAN, MRS., D.SC., F.L.S. 3,
HALKET, ANN C., B.SC. BW.
LACEY, H. B. 11.
LEE, E., A.R.C.S. 3.
OLIVER, F. W., M.A. CAMB., D.SC., F.R.S. Quain Prof. U.
THOMAS, MISS E. N., B.SC. Reader B.W.

Mycology

SALMON, E. S. Reader Ag.

Plant Physiology [U.

HILL, T. G., A.R.C.S., F.L.S. Reader

CHEMISTRY (v. also *Biol.*)

ARMSTRONG, H. E., PH.D. LEIP., LL.D., F.R.S. Im.
BAKER, H. B., M.A., D.SC. OX., F.R.S. Im.
BARGER, G., M.A. CAMB., D.SC. Prof. Ho.
BARROW, F., M.SC. BIR., PH.D. STRAS. 3.
BURKE, MISS K. A., B.SC. U.
BURROWS, H., PH.D. HEID., A.R.C.S. 10.
CANDY, H. C. H., B.A., B.SC., F.I.C., F.C.S. L.
CLARKE, R. W. L., B.SC. 1.
CLOUGH, G. W., B.SC. BIR. 3.
COLEMAN, J. B., A.R.C.S., F.I.C., F.C.S. 11.
CROMPTON, H., F.C.S. BW.
CROSSLEY, A. W., D.SC. MANC., PH.D. WÜRZ., F.R.S. Prof. 30.
DEAN, G., M.A. CAMB. 12.
DONNAN, F. G., M.A. R.U.I., PH.D. LEIP., F.R.S. Prof. of *Genl. Chem.* U.
FORSTER, M. O., D.SC., PH.D. WÜRZ., F.I.C., F.R.S. Im.
GRAY, R. W., PH.D. BONN U.
HEWITT, J. T., M.A. CAMB., D.SC., PH.D. HEID., F.R.S. Prof. EL.
HODGSON, H. H., M.A. CAMB., B.SC., PH.D. HEID. 8.
HURTLEY, W. H., D.SC. B.
JONES, H. C., F.I.C. Im.
KEANE, C. A., D.SC. MANC., PH.D. BAV., F.I.C. 10.
KELLAS, A. M., B.SC., PH.D. HEID. M.
KIRKALDY, P. H., F.I.C. K.
LANDER, G. D., D.SC. LOND. AND ST. AND. 9.
LE SUEUR, H. R., D.SC., F.I.C. T.
LOWE, F. H., M.SC. MANC. 11.
LOWRY, T. M., D.SC., F.C.S. Reader G.
MC KENZIE, A., M.A., D.SC. ST. AND., PH.D. BERL. 3.
MARTIN, G., B.SC., PH.D. ROS., M.SC. BRIS. 3.
MELDOLA, R., D.SC. OX., LL.D. ST. AND., F.R.S. Prof. 5.
MELLAND, G., M.SC. MANC., A.R.S.M., F.I.C. 13.
MILLS, W. S., D.SC. R.U.I. 13.
PHILIP, J. C., M.A., D.SC. ABERD., PH.D. GÖTT. Im.
POPE, F. G., B.SC. EL.

RAWSON, S. G., D.SC., F.I.C. 2.
ROBERTSON, P. W., M.A., M.SC. N.Z., PH.D. LEIP., B.A. OX. Im.
ROBERTSON, W., A.R.C.S. Im.
SENTER, G., D.SC., PH.D. LEIP. Reader SM.
SMILES, S., D.SC. U.
SMITH, C., D.SC., A.R.C.S. EL.
SMITH, H. L., B.SC. MANC. K.
SPENCER, J. F., D.SC. LIV., PH.D. BRES. BW.
STREATFEILD, F. H. 12.
TUCK, W. B., D.SC. U.
WATSON, W. H., B.SC. 8.
WHITE, J. L., D.SC. DURH. 2.
WHITELEY, MISS M. A., D.SC., A.R.C.S. Im.
WIDDOWS, SIBYL T., B.SC. LW.
WILSON, J., M.SC. MANC., F.I.C. 2.

Chemistry, Genl. and Inorg.

THOMSON, J. M., LL.D., F.I.C., F.C.S., F.R.S. Daniell Prof. K.

Chemistry, Organic

COLLIE, J. N., LL.D. GLAS., D.SC. LIV. AND BELF., PH.D. WÜRZ., F.I.C., F.R.S. Prof. U.
CROCKER, J. C., M.A. CAMB., D.SC. II.
JACKSON, H., F.I.C., F.C.S. Prof. K.

Chem., Path. (v. also *Biochem.*)

FLACK, M. W., M.A., M.B., B.CH. OX. (*C.P.* and *Physiol.*) L.
GARROD, A. E. (v. *Med.—Dis.*) B.
GOODBODY, F. W., M.D., B.CH., B.A.O., B.A. DUB., M.R.C.P. U.
HARLEY, E. V. B., M.D. EDIN., M.R.C.P., F.C.S. U.
MACLEAN, H., D.SC., M.D., CH.B. ABERD., M.SC. LIV. T.
WILLCOX, W. H., M.D., B.SC., F.R.C.P., F.I.C., F.C.S., D.P.H. (also in *Med.—For.* and *Clin.*) SM.

Chemistry, Physiological

GARDNER, J. A., M.A. OX., F.I.C., F.C.S. Reader 23*a*, SG, LW.
PLIMMER, R. H. A., D.SC. Reader U. (also recog. in *Physiol.*)

Chemical Technology

BONE, W. A., D.SC. MANC., PH.D. HEID. Im.

COMMERCE

SARGENT, A. J., M.A. OX. Prof. E.

DENTISTRY

D. Anat. and Physiol.

HOPEWELL-SMITH, A.* D.
HOPSON, M. F.,† F.L.S. (*D. Anat.*) G.
MAGGS, W. A.* G.
PARE, J. W., M.D., C.M. EDIN.† 27.

D. Mechanics

GABELL, D. P.* D.
PAYNE, J. L.* G.
ROSE, H.† 27.

D. Surgery

ACKLAND, R. C.* B.
BENNETT, N. G., M.A., M.B., B.C. CAMB.* SG.
COLYER, J. F.* C.
DOLAMORE, W. H.* (*Operative D.S.*) SM, D.
GLASSINGTON, C. W., M.R.C.S., †EDIN. W.
RELPH, H. J.* 27.
ROUW, R. W.* G.
SPOKES, P. S., M.R.C.S.† UM.
TURNER, J. G., L.R.C.P., F.R.C.S.† D.
WALLIS, C. E.* KM.

ECONOMICS (v. also *Pub. Adm.*, *Sociol.*, *Stats.*, *Transp.*)

ARMITAGE-SMITH, G., M.A., D.LIT. (also in *Ment. and Mor. Sc.*) 3.
ATKINSON, MABEL, M.A. GLAS. (*E. and Ec. Hist.*) KW.
CANNAN, E., M.A. OX., LL.D. Prof. of *Pol. Econ.* E.
FOXWELL, H. S., M.A. CAMB., F.B.A. Prof. of *Pol. Econ.* U,E.
RANKIN, G. C., M.A. EDIN. (*Logic* and *Principles of E.*) 3.
URWICK, E. J., M.A. OX. K.

Econ. Hist. (v. also *Econ.*, *Hist.—Const.*, *Palæog.*, *Pub. Adm.*)

KNOWLES, MRS., LITT.D. DUB., H.T. AND L.T. CAMB. Reader E.

* L.R.C.P., M.R.C.S., L.D.S.

† L.D.S.

EDUCATION

ADAMS, J., LL.D. ST. AND., M.A., B.SC. GLAS. Prof. Tr.
ADAMSON, J. W., B.A. Prof. K.
CARPENTER, CLARA E. 16.
CLARKE, KATE M. 14.
DENNIS, H. W., M.A. OX. 18.
DEUTSCH, HENRIETTE, H.T. I. AND II. CAMB., B.A. DUB. 15.
HAGUE, J. C., M.A. MANC. Tr.
HASLAM, KATHARINE S. E., C.T. CAMB., M.A. DUB. 16.
HOLMER, MAY R. N., M.A. DUB. 15.
HUDSON, R., M.A. CAMB. 19.
JOHNSTON, MISS K. L., B.A., MOR.SC.T. CAMB. 14.
MELHUISH, SARA, M.A. MANC. BW.
NICHOLSON, MISS A. M., M.L.T. CAMB., M.A. 14.
NUNN, T. P., M.A., D.SC. Prof. Tr.
POWELL, MISS H. L., H.T. CAMB. 15.
PUNNETT, MARGARET, B.A. Tr.
RIGG, CAROLINE E. 16.
SACHS, IDA B., MA.T., H.T. II. CAMB. 14.

Pedagogy as applied to Music

WARRINER, J., MUS.D. DUB. 22.

ENGINEERING (v. also *Archit.*)

CAPPER, D. S., M.A. EDIN., M.I.C.E.† ‡ Prof. K.
DALBY, W. E., M.A. CAMB., B.SC., M.I.C.E.,‡ A.M.I.N.A., F.R.S. Prof. Im.
WAYNFORTH, H. M.* ‡ Prof. K.

Civil Engineering

JAMESON, A. H., M.SC. MANC., M.I.C.E. Prof. K.
SIMPSON, PROF. F. M. (v. *Archit.*) U.

Civil and Mech. Engin.

CURNOCK, W. E. M., M.SC.(ENG.) MANC., B.ENG. LIV., A.M.I.E.E. 2.
LAMB, E. H., M.SC. MANC.* Prof. EL.
MARGETSON, A. J., M.SC. BRIS., A.M.I.M.E. Im.
SINNATT, O. S., M.SC. MANC. K.
TAYLOR, H. G., M.SC. MANC. K.
WHITTAKER, H., B.SC.(ENG.) Im.
WITCHELL, E. F. D., B.SC. Im.
WOLFENDEN, R., M.SC. MANC. K.

Electrical Engineering

ASHTON, A. W., M.SC. DURH. 2.
CLINTON, W. C., B.SC.† U.
DENTON, F. M., A.C.G.I. 7.
DOVER, A. T., A.M.I.E.E. 2.
FLEMING, J. A., M.A. CAMB.,† D.SC., F.R.S. Prof. U.
FRIEDLAENDER, P. R.† 12.
HAWORTH, H. F., PH.D. BÂLE, M.SC. MANC., B.ENG. LIV. Im.
HOWE, G. W. O., M.SC. DURH.† Im.
IRWIN, J. T., A.M.I.E.E. Im.
JOLLEY, A. C. 7.
KEMP, P., M.SC.(TECH.) MANC. EL.
MAKOWER, A. J., M.A. CAMB.† 11.
MATHER, T.,† F.R.S. Im.
MORPHY, B. H., A.M.I.E.E. 11.
MORRIS, J. T.† EL.
ROBERTSON, F. S., A.M.I.E.E. K.
SCOTT, E. K., A.M.I.C.E.† ‡ U, 7.
SHAWCROSS, R. E.* K.
SMITH, S. P., D.SC. DURH.,* A.M.I.E.E. Im.
WADSWORTH, T., M.SC. MANC. 13.
WALMSLEY, R. M., D.SC.,† F.R.S.E. 7.
WILSON, E., M.I.C.E.† W. Siemens Prof. K.
THOMPSON, PROF. (v. *Phys.—App.*) 5.

Engineering Design

CRUICKSHANK, A., A.M.I.M.E. Im.
MCKAY, R. F., M.SC. DURH. Im.

Mechanical Engin.

ANDREW, H., M.SC. MANC. 13.
CHAPPELL, E., B.SC.,* A.C.G.I. Im.
CLARK, H. A., WH.SC., A.R.C.S. 8.
CORMACK, J. D., D.SC. BRUX., B.SC. GLAS., M.I.C.E.† ‡ Prof. U.
GOUDIE, W. J., B.SC.‡ U.
HEWSON, W., B.SC., A.R.C.S.* Im.
HOUSTON, W. C., B.SC. GLAS.* 11.
LARARD, C. E., M.I.M.E.* 7.
LINEHAM, W. J., B.SC., M.I.C.E.†‡ 1.
LONGLAND, W., B.SC.,* A.M.I.M.E. 7.
MACLACHLAN, D. R., B.SC. ENG. GLAS. 13.
PHILPOT, H. P., B.SC., A.M.I.M.E. U.

* A.M.I.C.E. † M.I.E.E. ‡ M.I.M.E.

SHAW, J. B., A.R.C.S. 2.
SPRAGUE, E. H.* U.
WELLS, G. J.,*†, M.I.MAR.E. EL.

Mech. Engin. and *Surveying*

BOSWALL, R. O., B.SC. 7.
DUNCAN, J., M.I.M.E. 12.
WALKER, A. J.,* A.M.I.M.E., A.I.E.E. 12.

Structural Engineering

KEITH, D. A., A.M.I.C.E. 7.

Surveying

ORMSBY, M. T. M., A.R.C.S. DUB., M.I.C.E.I. U, 2.

ETHNOLOGY

SELIGMANN, C. G., M.D., F.R.C.P., M.R.C.S., F.Z.S. Prof. E.

EUGENICS [Galton Prof. U.

PEARSON, KARL, M.A., LL.D. CAMB. AND ST. AND., F.R.S.

GEOGRAPHY [Reader E.

MACKINDER, H. J., M.A. OX., M.P.
LYDE, L. W., M.A. OX. U.
UNSTEAD, J. F., M.A. CAMB., D.SC. 3.

GEOLOGY [EL, 8.

CARTER, W. L., M.A. CAMB., F.G.S.
COX, A. H., M.SC., BIRM., PH.D. STRASS. K.
DAVIES, A. M., D.SC., A.R.C.S., F.G.S. Im, 3.
ELSDEN, J. V., D.SC. 2.
GARWOOD, E. J., M.A. CAMB., SEC. G.S. Yates-Goldsmid Prof. U.
MASLEN, A. J., F.L.S., F.G.S. 11.
RAISIN, MISS C. A., D.SC., F.R.G.S. BW.
SIBLY, T. F., D.SC. K.
SMITH, H. G., B.SC., A.R.C.S. 1.
WATTS, W. W., M.A., SC.D. CAMB., M.SC. BIR., LL.D. ST. AND., F.G.S., F.R.S. Im.

Geol. and Mineralogy

EVANS, J. W., D.SC., LL.B. 3.

Mineralogy

CULLIS, C. G., D.SC., F.G.S. Im.

HISTORY (v. also *Econ.*, *Palæog.*, *Pub. Adm.*)

ALLEN, J. W., M.A. OX. BW.
CLARKE, F., M.A. OX. EL.
JOHNSTONE, MISS H., M.A. MANC. Reader KW.
JONES, A., M.A. MANC. 3.
MONTAGUE, F. C., M.A. OX. U.
REID, RACHEL R., M.A., D.LIT. U.
SKEEL, CAROLINE A. J., D.LIT., C.T.I., H.T. CAMB. Wf.

Ancient History [U, BW.

CASPARI, M. O. B., M.A. OX. Reader
FOTHERINGHAM, J. K., M.A., D.LITT. OX. (also recog. in *Classics*) Reader K, KW.

Constitutional Hist.

WALLAS, G. (v. *Pub. Admin.*) E.

English History

POLLARD, A. F., M.A. OX., LITT.D. MANC. Prof. U.

French Hist. and Institns., Mod.

MANTOUX, P. J., D.-ÈS-L. Prof. U, E.

Mediæval History

HEARNSHAW, F. J. C., M.A., LL.M. CAMB., LL.D. DUB. Prof. K.

Modern History

CARLYLE, E. I., M.A. OX. Ho.
LAUGHTON, SIR JOHN K., M.A., LITT.D. CAMB., D.LITT. OX. Prof. K, KW

HYGIENE [Chadwick Prof. U.

KENWOOD, H. R., C.M., M.B. EDIN.,‡ F.C.S.,§ F.R.S.E.
FOULERTON, A. G. R., F.R.C.S., F.C.S.‡ || [Reader in *H.* and *Pub. Health* M.
BRINCKER, J. A. H., B.A., M.B., B.C. CAMB.§ BW.
BROWN, R. K., M.D., B.CH., B.A.O., B.A. R.U.I.§ G.
COPEMAN, S. M., M.A. CAMB., M.D., F.R.C.P.,§ F.R.S. W.
FEGEN, C. M.,‡ M.R.C.S.§ SG.
GREENWOOD, M., JUNR., M.R.C.S.‡ (*Statistical Methods in applications to H. & Path.*) Ll.

A.M.I.C.E. † M.I.M.E. ‡ L.R.C.P. § D.P.H. || D.P.H. Camb.

NEWMAN, SIR GEORGE, M.D., C.M. EDIN.,* F.R.S.E. B.
SIMPSON, W. J. R., C.M.G., M.D., C.M. ABERD., F.R.C.P.* KM, LW, T.
SOMMERVILLE, D., M.D., B.CH., B.A.O., B.A. R.U.I., M.R.C.P., F.C.S.* K.
SPITTA, H. R. D., M.D., B.S. DURH.,† M.R.C.S.* SG.
THRESH, J. C., D.SC., M.D., B.CH. MANC.,* F.I.C. L.

Trop. Hyg.

SIMPSON, W. J. R., C.M.G., M.D., C.M. ABERD., F.R.C.P.* TM.

LANGUAGES and Lit. (v. also *Philol., Phon.*)

African Langs.

WERNER, ALICE K.

Arabic

ARNOLD, T. W., C.I.E., M.A. CAMB. U.
HARDING, H. G. J.

Aramaic, v. *Hebrew*

Burmese

HOUGH, A. L. U.

Chinese

OWEN, G. K.

Classics (v. also *Hist., Anct.*)

ALFORD, MARGARET, C.T.I. CAMB. (*Lat.*) Wf.
ALLEN, T. W., M.A. OX. Ho.
BURROWS, R. M., M.A., D.LITT. OX. (also in *Archæol.*) K.
BUTLER, H. E., M.A. OX. Prof. of *Lat.* U.
COMPSTON, H. F. B., M.A. OX. (*Lat.*) KT.
DONKIN, E. H., M.A. OX. Ho.
EARP, F. R., M.A. CAMB. EL.
KILNER, G. W., M.A. N, H, R, 3.
MCDOUGALL, ELEANOR, M.A. W.
MACGREGOR, J. M., M.A. OX. Reader in *Gk.* BW.
MITCHELL, J. M., B.A. OX. EL, 3.
PARKER, CONSTANCE E., CL. HONS. MOD., LITT. HUM. OX. Wf.
PLATT, J. A., M.A. CAMB. Prof. of *Gk.* U.
RAMSAY, AGNES M., M.A. ABERD., HONS. LITT. HUM. OX. Ho.
RICHARDSON, ANNE W., B.A. Wf.
SOLOMON, L., M.A. OX. U.
STRUDWICK, ETHEL, M.A. BW.
TARRANT, DOROTHY, M.A. DUB., C.T. I. AND II. CAMB. BW.
TAYLOR, MISS M. E. J., M.A. DUB., C.T. I. AND II. CAMB. Ho.
TURNER, B. E. R., B.A. OX. K.
WALTERS, W. C. F., M.A. OX. Prof. of *Classical Lit.* K, KW.
WRIGHT, F. A., M.A. CAMB. 3.

English

BLOCK, MISS K. S., M.L.T. CAMB., M.A. DUB. Ho.
CHAMBERS, R. W., M.A., D.LIT. (*Lang. and Lit.*) U.
FOSTER, T. G., B.A., PH.D. STRAS. (*Lang. and Lit. and Philol.*) U.
GOLLANCZ, I., M.A., LITT.D. CAMB., F.B.A. (Prof. of *E. Lang. and Lit.* K, KW.
GRATTAN, J. H. G., B.A. (*Lang.*) 3.
GUTHKELCH, A. C. L., M.A. K.
INGRAM, EMILY G., M.A. EL.
KER, W. P., M.A. OX., LL.D. GLAS., LITT.D. MANC., F.B.A. Quain Prof. of *E. Lang. and Lit.* U.
LEE, MARGARET L., FINAL HONS. ENGL. OX. KW.
LEE, SIR SIDNEY, D.LITT. OX., LITT.D. MANC., LL.D. GLAS., F.B.A. Prof. of *E. Lang. and Lit.* EL.
LOBBAN, J. H., M.A. ABERD. (*Lang. and Lit.*) 3.
MORLEY, EDITH J., FINAL HONS. ENGL. OX. KW.
ROUTH, H. V., M.A. CAMB. I.
SPURGEON, MISS C. F. E., FINAL HONS. ENGL. OX., D.-ÈS-L. Prof. of *E. Lit.* BW.
THOMAS, P. G., M.A. CAMB. AND LIV. Reader in *E. Lang. & Lit.* BW.

* D.P.H. Camb. † L.R.C.P.

WARREN, KATE M. (*Lang. and Lit.*) Wf.
YOUNG, W. T., M.A. LIV. (*Lang. and Lit.*) 1.
Engl. and Germanic Philol.
MURRAY, HILDA M. E. A. R., FINAL HONS. ENGL. OX., M.A. DUB. Ho.
French
BRANDIN, L. M., M.A., PH.D., L.-ÈS-L. Fielden Prof. of *F. and Romance Philol.* U.
CROSLAND, MRS., M.A. (*Lang.*) 3.
HONEY, MARGARET E. D., M.A. (*F. and Romance Philol.*) Ho.
JOHNSON, FANNY C., M.A. BW.
KASTNER, V. E., B.-ÈS-L. 3.
PAQUIER, MINA C. E. EL.
PERRET, J. A., O.D'A. 4.
RUDLER, G., D.-ÈS-L. PARIS Prof. of *F. Lit.* BW.
SALMON, A. V., B.-ÈS-L. (*F.* and *Romance Philol.*) K, KW.
SPIERS, V., M.A. OX., B.-ÈS-L. K, KW.
TUKE, MISS M. J., M.L.T. CAMB., M.A. DUB. (*F. and Romance Philol.*) BW.
German (v. also *Engl. and G.*)
ATKINS, H. G., M.A. Reader K, KW.
BITHELL, J., M.A. MANC. 3.
DELP, MISS W. E., M.L.T. CAMB., D.S., DOC. DE L'U. PARIS Ho.
PERRETT, W., B.A., PH.D. JENA Reader Wf.
PRIEBSCH, R. C., B.A., PH.D. GRAZ. Prof. U.
ROBERTSON, J. G., PH.D., M.A., B.SC. GLAS., PH.D. LEIP. Prof. U, BW.
STEPPAT, J., B.A., PH.D. WIEN Reader EL.
Greek, v. *Classics*
Gujarati
KAPADIA, S. A., M.D. BRUX., L.R.C.P., L.R.C.S. U.
Hebrew [K, KT.
COMPSTON, H. F. B., M.A. OX.
GOLLANCZ, H., M.A., D.LIT. (*Bibl., Talm., and Rabbinic H., Aramaic and Syriac*) U.
HIRSCHFELD, H., PH.D. STRAS. (*Semitic Epig.* and *H. and Semitics*) U, 6.
MARMORSTEIN, A., PH.D. HEID. (*Bible* and *Rabbinics*) 6.
Italian
CIPPICO, A., DR. JURIS GRAZ. U.
RICCI, L., B.A. PADUA K, KW, 3, 4.
Latin, v. *Classics*
Persian
WILSON, C. E., B.A. U.
Russian
ORLOFF, N., M.A. ST. PET. K.
Sanskrit
BARNETT, L. D., M.A., LITT.D. MANC., M.A. CAMB. U.
Semitics (v. also *Hebrew*)
BÜCHLER, A., PH.D. LEIP. 6.
DAICHES, S., PH.D. LEIP. 6.
Tamil and Telugu
FRAZER, R. W., B.A., LL.B. DUB. U.
Tibetan [Reader U.
THOMAS, F. W., M.A. CAMB., PH.D.
Turkish
TIEN, A., PH.D. ROME K.

LAW

CUTLER, J., K.C., M.A. OX. (*Engl. Law*) K.
DISNEY, H. W., B.A. OX. (*Railway L.*) E.
GREEN, J. S., LL.B., M.A., B.C.L. OX. (*Equity and Conveyancing*) 3.
GRIFFITH, W. H., B.A. CAMB. (*Common L.*) K.
HIBBERT, W. N., LL.D. (*Roman L.* and *Jurispr.*) K.
HIGGINS, A. P., M.A., LL.D. CAMB. (*Internat. L.*) E.
HUMPHRIES, S., B.A., LL.B. CAMB. (*Comml. and Merc. L.*) 4.
HURST, G. H. J., M.A., LL.M. CAMB. Reader in *Engl. L.* U.
LEE, R. W., M.A., B.C.L. OX. (*Rom. Dutch L.*) U.
MACDONELL, SIR JOHN, C.B., M.A., LL.D. ABERD., F.B.A. Quain Prof. of *Comparative L.* U.
MACKAY, H. J. H., M.A., LL.B. GLAS. (*Engl. L.*) K.

MANSON, E. W. O'D., B.A. OX. (*Comml. L.*) E.
MORGAN, J. H., M.A. (*Const. L.* and *Colonial Const. L.*) U, E.
MORICE, B., LL.B. (*Common and Comml. L.*) 3.
MURISON, A. F., M.A., LL.D. ABERD. (*Jurispr.* and *Roman L.*) U.
NEILL, J. W. (*Indian L.*) U.
PAGE, A., B.A. OX. (*Comml. L.* and *Crim. L. and Procedure*) E, K.
PAGET, SIR JOHN R., BART., K.C., B.A., LL.B. CAMB. (*Banking L.*) K.
WRIGHT, R. A., M.A. CAMB. (*Industr. and Comml. L.*) E.

LOGIC, v. *Philos.*

MATHEMATICS

AIREY, J. R., M.A. CAMB., B.SC. 12.
BRYANT, R., B.A., D.SC. 4.
CHURCHILL, W. F. S., M.A. OX. EL.
CLAY, R. S., B.A. CAMB., D.SC. 8.
COATES, C. V., M.A. R.U.I. 3.
COLEMAN, P., M.A. OX. 8.
CURZON, H. E. J., M.A. CAMB., B.SC. 1.
DALE, J. B., M.A. CAMB. K.
EDWARDS, R. W. K., M.A. CAMB. K, KW.
FORSYTH, A. R., M.A., SC.D. CAMB., LL.D., F.R.S. Im.
GRIEVE, A. B., M.A., D.SC. EDIN. EL.
HARRIS, H. H., M.A. CAMB. 2.
HARVEY, F. W., M.A. R.U.I., B.SC. 2.
HATTON, J. L. S., M.A. OX. EL.
HIGGINS, ELLEN C., B.A., FINAL HONS. MATHS. OX. Ho.
HILL, M. J. M., M.A., SC.D. CAMB., LL.D. ST. AND., F.R.S. Astor Prof. U.
HILTON, H., M.A., D.SC. OX. Prof. BW.
HUDSON, HILDA P., MA.T. I. AND II. CAMB., M.A. DUB. 12.
ISSERLIS, L., B.A. CAMB. 12.
KLUGH, H., B.A. CAMB. Im.
LE BEAU, G. S., M.A. OX. EL.
LISTER, J., A.R.C.S., A.I.E.E. 11.
LONEY, S. L., M.A. CAMB. Ho.
MILLER, T. H., M.A., D.SC. GLAS. 17.
NICHOLSON, J. W., M.A. CAMB., M.SC. MANC., D.SC. Prof. K.
PICK, MARION, HONS. MATHS. OX., M.A. Ho.
RHIND, A., B.SC., A.R.C.S. 8.
ROWELL, ETHEL M., HONS. MATHS. AND MOD. OX. Ho.
SALMON, W. H., B.A. CAMB., B.SC. 7, 11.
SAXELBY, F. M., M.SC. MANC., B.A. 2.
SHOVELTON, S. T., M.A. OX. K.
SMART, E. H., M.A. CAMB. 3.
SMITH, R. T., B.A. CAMB. 13.
SNOW, E. C., M.A. OX., D.SC. 10.
TURNER, G. C., B.SC., A.I.E.E. 1.
WHITBY, LILIAN J., B.A., HONS. MATHS. OX. Wf.
WHITE, S. A. F., M.A. OX. Prof. K.
WRIGLEY, P. T., M.A. CAMB. Im.

Applied Maths. and Mechanics

FILON, L. N. G., M.A., D.SC., F.R.S. Goldsmid Prof. U.

Geometry

WHITEHEAD, A. N., M.A., SC.D. CAMB., F.R.S. Reader U.

Graphics

ECCLES, W. H., D.SC. Reader U.

MEDICINE and Surgery (v. also *Zool.—Med.*)

Anæsthetics

BERRY, MRS., M.D., B.S. LW.
BLUMFELD, J., M.D., B.C., B.A. CAMB. SM.
BRAINE, C. C.* C.
BUXTON, D. W., M.D., B.S., M.†, M.‡ UM.
GILL, R., B.SC., M.B., B.S., F.‡ B.
HEWITT, SIR FREDERIC W., M.V.O., M.D., M.A. CAMB., M.‡ SG.
LOW, H., M.A., M.B., B.C. CAMB., L.†, M.‡ T.
PROBYN-WILLIAMS, R. J., M.D. DURH., L.†, M.‡ L.
ROWELL, G.* G.
SILK, J. F. W., M.D., M.‡ KM.

* L.R.C.P., F.R.C.S. † R.C.P. ‡ R.C.S.

Aural Surgery [SG.

BULL, W. C., M.A., M.B. CAMB., F.‡

CHEATLE, A. H.‖ KM.

DE SANTI, P. R. W.‖ W.

FAGGE, C. H., M.S., M.B.‖ G.

GRANT, J. D., M.D., C.M., M.A. EDIN., F.‡ (also in *Laryng.*) 25.

HILL, G. W., M.D., B.SC. (also in *Laryng.*) SM.

MARRIAGE, H. J., M.B., B.S.,‖ T.

MOLLISON, W. M., M.A., M.C. CAMB., F.‡ G.

SCOTT, S. R., M.S., M.B.,‖ B, 28.

TILLEY, H., M.D., B.S., F.‡ (also in *Laryng.*) UM.

TOD, H. F., M.D., B.C., M.A. CAMB.,‖ L.

WAGGETT, E. B., M.A., M.B., B.C. CAMB., L.†, M.‡ (also in *Laryng.*) C.

WEST, C. E.‖ B.

Bacteriology (v. also *Path. Exp.*)

ANDREWES, PROF. F.W. (v. *Path.*) B.

BERNSTEIN, J. M., M.B., M.†,§ W.

BULLOCH, W., M.D., C.M. ABERD., F.R.S. (recog. in *Path.*) Prof. L.

CHAMBERS, HELEN, M.D., B.S. LW.

DOUGLAS, CAPT. S. R., L.†, M.‡ SM.

DUDGEON, L. S. (v. *Path.*) T.

EMERY, W. D'E., M.D., B.SC., L.†, M.‡ (also in *Path.*) KM.

EYRE, J. W. H., M.D., M.S. DURH., L.†, M.‡, §, F.R.S.E. Reader G.

FOULERTON, A. G. R. (v. *Hyg.*) M.

GOADBY, K. W., L.†, M.‡, L.D.S.§ 27.

HEWLETT, R. T., M.D., ¶, D.P.H. (recog. in *Path.*) Prof. K.

LEDINGHAM, J. C. G., M.A., M.B., CH.B., B.SC. ABERD. Reader LI.

PETRIE, G. F., M.D., CH.B. ABERD. LI.

SHATTOCK, PROF. S. G. (v. *Anat.*) T.

SMITH, J. H., B.A. OX., M.B., CH.B. EDIN. LI.

TAYLOR, F. E., M.D., B.S., M.A., M.SC. MANC., M.B., CH.B.,§, M.†, F.‡ K.

Dermatology (v. also *Surg.*)

ADAMSON, H. G., M.D.,¶ B.

DORE, S. E., M.A., M.D. CAMB., M.† ‡ W.

FOX, W. S., M.D., B.C., M.A. CAMB., M.† ‡, F.Z.S. SG.

GALLOWAY, J., M.A., M.D., C.M. ABERD., F.† ‡ C.

GRAY, A. M. H., M.D., B.S., M.†, F.‡ UM.

LITTLE, E. G. G., B.A., M.D.,¶ SM.

MACLEOD, J. MACL. H., M.D., C.M. ABERD., M.A. ST. AND., M.† C.

PRINGLE, J. J., C.M., M.B. EDIN., F.† M.

SEQUEIRA, J. H., M.D., F.† ‡ L.

STAINER, E., M.A., M.D., B.CH. OX., F.† T.

WHITFIELD, A., M.D.,¶ KM.

Diseases of Children

COLMAN, W. S., M.D.,¶ 26.

Dis. of Child. and *Medicine*

BATTEN, F. E., M.D., B.C., M.A. CAMB., F.† 26, *28.

CAMERON, H. C., M.A. CAMB. AND GLAS., M.D. CAMB., M.R.C.P. G.

FLETCHER, H. M., M.A., M.D., B.C. CAMB., F.R.C.P. B.

GARROD, A. E., M.D., M.A. OX.,¶, F.R.S. (also in *Chem.—Path.*) 26, B.

HUTCHISON, R. (v. *Pharm.*) 26, L.

POYNTON, F. J., M.D., F.† 26, UM.

STILL, G. F., M.D., B.C., M.A. CAMB., F.† 26, KM.

THOMPSON, H. T., B.SC., M.D., B.C., M.A. CAMB., F.† ‡ 26, *L.

THURSFIELD, J. H., M.D., M.A. OX., F.† 26, B.

VOELCKER, A. F., M.D., B.S.,¶ 26, M.

YOUNG, R. A. (v. *Pharm.*) M,*25.

Dis. of Child. and *Surg.*

FAIRBANK, H. A. T., M.S., M.B.,‖, L.D.S. 26, C.

KELLOCK, T. H., M.D., M.C. CAMB., M.A.,‖ 26, M.

LANE, SIR W. A., BART., M.S., M.B., F.‡ 26, G.

* Clinical.

† R.C.P. ‡ R.C.S. § D.P.H. Camb. ‖ L.R.C.P., F.R.C.S. ¶ F.R.C.P., M.R.C.S.

Dis. of Women

HEDLEY, J. P., M.A., M.C., M.B. CAMB., M.†, F.‡ T.

VAUGHAN - SAWYER, MRS., M.D., B.S. LW.

Dis. of W. and Midwifery

BERKELEY, G. H. A. C., M.A., M.D., M.C. CAMB.,¶ M.

BONNEY, W. F. V., M.D., M.S., B.SC., M.†, F.‡ M.

FAIRBAIRN, J. S., M.A., M.B., B.CH. OX., F.† ‡ T.

MAXWELL, R. D., M.D., F.‡ L.

PLAYFAIR, H. J. M., M.D., M.†, F.‡ KM.

ROBINSON, G. H. D., M.D., B.S.,¶ W.

WILLEY, MRS., M.D., M.S., B.SC. LW.

WILLIAMSON, H., M.A., M.B., B.C. CAMB.,¶ B.

Forensic Med. (v. also *Chem.—Path.*)

BERNSTEIN, J. M. (v. *Bact.*) W.

BREND, W. A., M.A. CAMB., M.B., B.SC. C.

COLLIER, J. S., M.D., B.SC., F.† (also in *Med.*) SG,*26

LYSTER, R. A., B.SC., M.D., CH.B., B.SC. (PUB. HEALTH), D.P.H. BIR. B.

RYFFEL, J. H., M.A., B.C. CAMB., B.SC., F.I.C. G.

SMITH, E., M.D., M.‡ T.

SMITH, F. J., M.D., M.A. OX., F.† ‡ (also in *Med.*) L.

SMITH, W. R., M.D., C.M. ABERD., D.SC. EDIN., D.P.H., LL.D. CAMB., F.R.S.E. KM.

WETHERED, F. J., M.D.,¶ M.

Helminthology

LEIPER, R. T., D.SC., M.B., CH.B. GLAS. TM.

Laryngology (v. also *Aural Surg.*)

BARWELL, H. S., M.B.,‖ SG.

GRAHAM, C. I.,‖ SM.

HARMER, W. D., M.C., M.B., M.A. CAMB.,‖ B.

HOWARTH, W. G., M.A., M.B., B.C. CAMB.,‖ T.

LACK, H. L., M.D.,‖ L.

ROBINSON, H. B., M.D., M.S., F.‡ T.

ROSE, F. A., M.A., M.B., B.C. CAMB.,‖ B.

THOMSON, SIR ST. CLAIR, M.D., F.† ‡ KM.

Medicine and Clin. Med. (v. also *Dis. of Child., Forensic Med., Path. and Pharmacol.*)

BOSANQUET, W. C., D.M., M.A. OX., F.† C, 25.

BOX, C. R., M.D., B.S., B.SC., F.† ‡ T.

BRADFORD, SIR J. R., K.C.M.G., M.D., D.SC.,¶, F.R.S. UM.

BRISCOE, J. C., M.D.,¶ *KM.

BROADBENT, SIR J. F. H., BART., M.D., B. CH., M.A. OX.,¶ SM.

BROWN, W. L., M.A., M.D., B.C. CAMB., F.† B.

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CARMALT-JONES, D. W., M.A. OX., M.D., B.CH., M.† ‡ W.

CARR, J. W., M.D., B.S., F.† ‡ LW.

CASSIDY, M. A., M.A., M.D., B.C. CAMB.,¶ *T.

COCK, JULIA, M.D. BRUX., L.†I., L.‡ EDIN., L.M. LW.

COCKAYNE, E. A., M.A., M.D. OX., M.† M.

CRAWFURD, R. H. P., M.D., B.CH., M.A. OX., F.† KM.

DAWSON, SIR BERTRAND E., K.C.V.O., M.D., B.SC.,¶ L.

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DRYSDALE, J. H., M.D., B.C., M.A. CAMB.,¶ B.

ELLIOTT, T. R., M.A., M.D. CAMB., M.† *UM.

FAWCETT, J., M.D., B.S., F.† ‡ G.

FENTON, W. J., M.A., M.D., B.C. CAMB., F.† *C, 25.

FORSYTH, D., M.D., D.SC.,¶ C.

FRENCH, H. S., M.D., B.CH., M.A. OX., F.† G.

GALLOWAY, J. (v. *Dermatol.*) C.

* Clinical. † R.C.P. ‡ R.C.S. ‖ L.R.C.P., F.R.C.S. ¶ F.R.C.P., M.R.C.S.

GOLLA, F. L., M.A., M.B., B.CH. OX., M.† *SG.
GOSSAGE, A. M., M.D., B.CH., M.A. OX.,¶ W.
HABERSHON, S. H., M.D., M.A. CAMB.,¶ 25.
HADLEY, W. J., M.D. DURH., F.† ‡, D.P.H. L.
HARRIS, W., B.A., M.D., B.C. CAMB., F.†, F.Z.S. SM.
HARTLEY, P. H.-S., C.V.O., M.D., B.C., M.A. CAMB.,¶ 25.
HAWKINS, H. P., M.D., B.CH., M.A. OX.,¶ T.
HEAD, H., M.A., M.D. CAMB.,¶, F.R.S. L.
HERRINGHAM, W. P., B.A., M.D. OX. AND DUB.,¶ B.
HERTZ, A. F. (v. *Neurol.*) G.
HOLMES, G. M., M.D. DUB., B.CH., B.A.O., B.A., M.† *28.
JEX-BLAKE, A. J., M.A., M.B., B.CH. OX., F.† *SG, 25.
KIDD, P., M.A., M.D. OX.,¶ *L.
LATHAM, A. C., M.A., D.M., B.CH. OX.,¶ SG.
LEWIS, T., M.D., D.SC. WALES, F.† UM.
LUFF, A. P., M.D., B.SC.,¶, D.P.H. SM.
MAC CORMAC, H., M.B., CH.B. EDIN., M.† *M.
MACKENZIE, H. W. G., M.A., M.D. CAMB.,¶ T.
MILLER, C. H., M.A., M.D., B.C. CAMB., M.† *25.
MILLER, R. H., M.D., B.S., M.†‡ *SM.
MOTT, F. W., M.D., B.S.,¶, F.R.S. C.
PASTEUR, W., M.D.,¶ M.
PERKINS, J. J., M.A., M.B., B.C. CAMB.,¶ T, 25.
PERRY, SIR E. C., M.A., M.D. CAMB.,¶ G.
PHEAR, A. G., M.D., B.C., B.A. CAMB., F.† LW.
PHILLIPS, S. P., M.D.¶ SM.
PITT, G.N., M.A., M.D., B.C. CAMB.,¶ G.
RUSSELL, A. E., M.D., B.S.,¶ T.
RUSSELL, J. S. R., M.D., C.M. EDIN., F.† UM, 28.
SAINSBURY, H., M.D.,¶ LW.
SHAW, H. B., M.D., B.S., F.† ‡ UM, 25.
SHAW, L. E., M.D.,¶ G.
SMITH, L. A., M.D.,¶ L.
STEWART, J. P., M.D., C.M., M.A. EDIN.,¶ W.
STEWART, T. G., M.D., CH.B. EDIN., F.† *28.
STODDART, W. H. B., M.D., B.S.,¶ 24.
TAYLOR, J., M.A., M.D. EDIN., F.† 28.
TIRARD, N. I. C., M.D.,¶ KM.
TOOTH, H. H., C.M.G., M.A., M.D. CAMB.,¶ *B, 28.
TURNER, W. A., M.D., C.M. EDIN., F.† *KM, 28.
TURNEY, H. G., D.M., M.CH., M.A. OX., F.† ‡ T.
WALL, R. C. B., D.M., B.CH., M.A. OX.,¶ *L, 25.
WARNER, F., M.D., F.† ‡ L.
WETHERED, F. J., M.D.,¶ M, 25.
WHITE, W. H., M.D.,¶ G.
WILLIAMSON, O. K., M.A., M.D. CAMB.,¶ *W.
WILTSHIRE, H. W., M.A., M.D., B.C. CAMB., M.† ‡ *KM.
WYNTER, W. E., M.D., B.S., F.† ‡ M.

Mental Diseases

BOND, C. H., D.SC., M.D., CH.M. EDIN., M.† M.
CHAMBERS, J., M.A., M.D., M.CH. R.U.I. M.
COLE, R. H., M.D., M.† ‡ SM.
CRAIG, M., M.A., M.D., B.C. CAMB.,¶ G.
HART, B., M.B., M.‡ UM.
JONES, R., M.D., B.S., F.† ‡ B.
PHILLIPS, J. G. P., M.D., B.S., L.†, M.‡ 24.
SMITH, R. P., M.D., B.S.,¶ T.
STEEN, R. H., B.A. R.U.I., M.D., M.† KM.
STODDART, W. H. B., M.D., B.S.,¶ LW.

* Clinical. † R.C.P. ‡ R.C.S. ¶ F.R.C.P., M.R.C.S.

TUKE, T. S., M.A., M.B., B.CH. OX., M.‡ SG.
WILL, J. K., M.A., M.D., C.M. ABERD. L.

Midwifery (v. also *Dis. of W.*)

ANDREWS, H. R., M.D., B.S.,¶ L.
BLACKER, G. F., M.D., B.S., F.† ‡ UM.
DODD, S., M.A., M.B., B.C. CAMB., M.†, F.‡E. W.
EDEN, T. W., M.D., C.M. EDIN., F.† ‡E. C.
GOW, W. J., M.D.,¶ SM.
GRIFFITH, W. S. A., M.D. CAMB., F.† ‡ B.
PHILLIPS, J., M.A., M.D. CAMB.,¶ KM.
SMITH, G. BELLINGHAM, M.B., B.S. F.‡ G.
SPENCER, H. R., M.D., B.S.,¶ UM.
STABB, A. F., M.B., B.C. CAMB.,¶ SG.
STEVENS, T. G., M.D., M.†, F.‡ SM.
TATE, W. W. H., M.D.,¶ T.

Neurology

HERTZ, A. F., M.D., B.CH., M.A. OX., F.† G.
HOWELL, C. M. H., M.A., M.D. OX., F.† 28.
THOMSON, H. C., M.D.,¶ M.
WILSON, S. A. K., M.A., B.SC., M.D. EDIN., M.† 28.

Ophthalmology

CARGILL, L. V.,‖ KM.
COATS, G., M.D., CH.B. GLAS., F.‡ SM, 29.
COLLINS, E. T.,‖ 29, C.
EASON, H. L., M.D., M.S., L.†, M.‡ G.
FISHER, J. H., M.B., B.S.,‖ T, 29.
FLEMMING, P., M.D., B.S., F.‡ UM, 29.
GRIMSDALE, H. B., B.A., M.B., B.C. CAMB., F.‡ SG.
HARTRIDGE, G.,‖ W.
HEPBURN, M. L., M.D., B.S.,‖ 29.
JAMES, R. R.,‖ SG.
JESSOP, W. H. H., M.A., M.B. CAMB., F.‡ B.
LANG, W., F.R.C.S. M.
LAWFORD, J. B., M.D., C.M. MCG.,‖ T, 29.
LAWSON, A., M.D. BRUX.,‖ M, 29.
LISTER, W. T., M.B., B.C., B.A. CAMB.,‖ L.
LYLE, H. W., M.D., B.S.,‖ KM.
MARSHALL, C. D.,‖ 29.
ORMOND, A. W.,‖ G.
PARSONS, J. H., D.SC., M.B., B.S., F.‡ UM, 29.
PATON, L. J., M.B., B.C. CAMB., B.A., F.‡ SM, 28.
ROXBURGH, A. B., M.A., M.B., B.CH. OX.,‖ L.
SPICER, W. T. H., M.A., M.B. CAMB., F.‡ B, 29.
WORTH, C. A.,‖ 29.

Pathology (v. also *Anat.—Morb.*, *Chem.*, *Hyg.*, and *Med.—Bact.*)

ANDREWES, F. W., M.A., M.D., B.CH. OX.,¶, D.P.H. CAMB. Prof. B.
BOLTON, C., M.D., B.S., D.SC.,¶ (also in *Med.*) UM.
CHAMBERS, HELEN, M.D., B.S. LW.
DALTON, N., M.D.,¶ (also in *Med.*) KM.
DANIELS, C. W., B.A., M.B. CAMB.,¶ TM.
DUDGEON, L. S., F.† Reader T.
HEBB, R. G., M.D., M.A. CAMB.,¶ W.
HICKS, J. A. B., M.D., B.S., D.P.H. W.
HUNTER, W., M.D., C.M. EDIN.,¶ Reader C.
INMAN, A. C., M.A., M.B., B.CH. OX. 25.
LAKIN, C. E., M.D., B.S., F.‡, M.† (also in *Med.*, *Clin.*) M.
LANGMEAD, F. S., M.D.,¶ LW.
LAZARUS-BARLOW, W. S., B.A., M.D., B.C. CAMB., F†. M.
MARTIN, S. H. C., M.D., B.S., B.SC.,¶, F.R.S. (also in *Med.*) UM.
RIDGE, P. B., M.B., B.CH., B.A.O. R.U.I. KM.
ROLLESTON, H. D., M.A., M.D., B.C. CAMB., F.† (also in *Med.*) SG.
SPILSBURY, B. H., B.A., M.B., B.CH. OX. SM.
THIELE, F. H., M.D., B.SC., F.† UM.

† R.C.P. ‡ R.C.S. ‖ L.R.C.P., F.R.C.S.
¶ F.R.C.P., M.R.C.S.

TREVOR, R. S., M.A., M.B., B.C. CAMB. SG.
TURNBULL, H. M., M.A., B.CH., D.M. OX., L.†, M.‡ L.

Pathology, Experimental

MARTIN, C. J., D.SC., M.B., M.‡, F.R.S. Prof. LI.
WRIGHT, SIR ALMROTH E., M.D., B.CH., SC.D. DUB., B.A. CAMB., F.R.S. (recog. in *Bact.*) Prof. SM.

Pharmaceutics [Prof. 30.

GREENISH, H. G., F.I.C., F.L.S.

Pharmacology

CUSHNY, A. R., M.D., C.M., LL.D., M.A. ABERD., F.R.S. Prof. U.
BEDDARD, A. P., M.D., B.C., M.A. CAMB., F.† ‡ (also in *Med.*) G.
CALVERT, J., B.A., M.D., B.SC.,¶ (also in *Med.*) B.
DIXON, W. E., M.D., B.S., M.A. CAMB., B.SC., L.†, M.‡, D.P.H., F.R.S. K.
GRÜNBAUM, O. F. F., D.SC., M.A., M.D., B.C. CAMB., F.R.C.P. (also in *Med., Clin.*) L.
HAMILL, P., M.A., M.D. CAMB., D.SC., M.† ‡ B.
HUTCHISON, R., M.D., C.M. EDIN., F.R.C.P. (also in *Med.*) L.
OGLE, C., M.A., M.D., B.CH. OX.,¶ (also in *Med.*) SG.
RANSOM, F., M.D. EDIN. LW.
YOUNG, R. A., M.D., B.SC., F.† M.

Surg. and Clin. Surg. (v. also *Dis. of Child.* and *Ophth.*)

ADDISON, O. L., M.B., B.S.,‖ *26.
ARMOUR, D. J., M.B., B.A. TOR., M.†, F.‡ *28.
BAILEY, R. C., M.S., M.B.,‖ B.
BALLANCE, C. A., M.V.O., M.S., M.B., F.‡ T.
BARKER, A. E. J., F.‡, L.†I., L.M. UM.
BATTLE, W. H.‡ T.
BLAND-SUTTON, SIR JOHN, F.‡ M.
BOWLBY, SIR ANTHONY A., C.M.G., F.‡ B.
BOYD, J. S. N., M.B., B.S., F.‡ C, 25.
BURGHARD, F. F., M.D., M.S., F.‡ KM.
CARLESS, A., M.S., M.B., F.‡ KM.
CARLING, E. R., M.B., B.S.,‖ W.
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CHEYNE, SIR W. W., BT., C.B., LL.D., C.M., M.B. EDIN., D.SC. OX., F.‡, F.R.S. KM.
CLOGG, H. S., M.S., M.B.,‖ C.
COPE, V. Z., B.A., M.D., M.S., F.‡ *SM.
CORNER, E. M., B.SC., M.A., M.C., M.B. CAMB.,‖ *T, 26.
CUNNING, J., M.B., B.S. MELB., F.‡ *LW.
DANIEL, P. L.,‖ *C.
DAVIES, H. M., M.A., M.D., M.C. CAMB.,‖ *UM.
DE SANTI, P. R. W.,‖ W.
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ECCLES, W. MCA., M.S., M.B.,‖ B.
ENGLISH, T. C., M.B., B.S.,‖ SG.
EVANS, A. H., M.D., M.S.,‖ W.
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EVE, SIR F. S.,‖ L.
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FEDDEN, W. F., M.S., M.B.,‖ SG.
FITZWILLIAMS, D. C. L., M.D., CH.M. EDIN., F.‡ *SM.
FRIPP, SIR ALFRED D., K.C.V.O., C.B., M.S., M.B.,‖ G.
FURNIVALL, P.,‖ *L.
GASK, G. E.,‖ B.
GODLEE, SIR RICKMAN J., BART., B.A., M.S., M.B., PRES.‡ UM.
GOULD, SIR ALFRED P., K.C.V.O. M.S., M.B.,‖ M.
GREENE, W. H. C. (v. *Anat.*) SM.
HANDLEY, W. S., M.D., M.S.,‖ M.
HASTINGS, S., M.S., M.B.,‖ *M.
HORSLEY, SIR VICTOR A. H., M.B., B.S., PH.D. (WIEN), F.‡, F.R.S.. 28.
HOWARD, R. J., M.S., M.B., F.‡ *L,
HUGHES, E.C., M.A., M.C.CAMB., F.‡ G.

* Clinical. † R.C.P. ‡ R.C.S. ‖ L.R.C.P., F.R.C.S. ¶ F.R.C.P., M.R.C.S.

HUTCHINSON, J., F.‡ L.
JAFFREY, F.,|| F.Z.S. SG.
JOHNSON, A. E., M.B., CH.B.MANC.,|| M.
JOHNSON, R., M.B., B.S., F.‡ UM.
KIDD, F. S., B.A., M.B., B.C. CAMB., F.‡ *L.
LANE, J. E., F.‡ SM.
LEGG, T. P., M.S., M.B.,|| *LW, KM.
LETT, H., M.B., CH.B. MANC.,|| *L.
LOW, V. W., M.D., B.S.,|| *SM.
MAKINS, G. H., C.B.,|| T.
MILNE, R., M.D., M.S., F.‡ *L.
MURRAY, J., M.B., B.CH. DUB., F.‡ M.
NITCH, C. A. R., M.B., M.S.,|| T.
OPENSHAW, T. H., C.M.G., M.B., M.S. DURH.,|| L.
PENDLEBURY, H. S., M.A., M.B., B.C. CAMB.,|| SG.
POLLARD, B., M.D., B.S., F.‡ UM.
POWER, D'A., M.A., M.B. OX., F.‡ B.
RAWLING, L. B., B.A., M.B., B.C. CAMB.,|| B.
RIGBY, H. M., M.B., M.S.,|| *L.
ROBINSON, H. B., M.D., M.S., F.‡ T.
ROWLANDS, R. P., M.B., M.S.,|| G.
SARGENT, P. W. G., M.A., M.B., B.C. CAMB.,|| T.
SHERREN, J.,|| *L.
SMITH, S. M., M.B., B.S.,|| SM.
SPENCER, W. G., M.S., M.B., F.‡ W.
STEWARD, F. J., M.S., M.B.,|| G.
STONHAM, C., C.M.G., F.‡, F.Z.S. W.
SWAINSON, J. M. G.,|| *W.
TAYLOR, W. G., M.A. ABERD., M.S., B.SC.,|| M.
THOMPSON, A. R., M.B., CH.M. MANC.,|| G.
TROTTER, W. B. L., M.D., M.S.,|| UM.
TUBBY, A. H., M.S., M.B.,|| W.
TURNER, G. R.,|| SG.
TURNER, P., M.S., M.B., B.SC.,|| *G.
TURNER, W., M.S., M.B.,|| W.
WALLACE, C. S., M.B., B.S.,|| T.
WALTON, A. J., B.SC., M.S., M.‡, L.† L.
WARING, H. J., M.S., M.B., B.SC.,|| *B.
WARREN, R., M.A., D.M., M.CH. OX., F.‡ *L.
WATERHOUSE, H. F., M.D. EDIN.,|| C.
WATSON, C. G.,|| *B.
WAUGH, G. E., B.A. CAMB., M.D., B.S.,|| 26.
WILSON, H. W., M.B., M.S., F.‡ B.

Trop. Hyg. (v. *Hygiene*)

Trop. Med.

HEWLETT, PROF. R. T. (v. *Bact.*) TM.
KERR, T. S., C.M., M.B., B.SC. (PUB. HEALTH) EDIN. SG.
MANSON, SIR PATRICK, G.C.M.G., M.D., C.M., LL.D. ABERD., D.SC. OX., F.†, F.R.S. TM.
NEWHAM, H. B. G., L.†, M.‡, D.P.H. CAMB., D.T.M. TM.
SANDWITH, F. M., M.D. DURH., F.†, M.‡ TM.

Trop. Surg.

CANTLIE, J., M.A., M.B., C.M. ABERD., F.‡, D.P.H. TM.

METALLURGY

HUNTINGTON, A. K., A.R.S.M., M.I.M.M., F.I.C. Prof. K.
MERRETT, W. H., A.R.S.M., M.I.M.M., F.I.C. Im.

METEOROLOGY [Reader.

SHAW, W. N., M.A., D.SC., SC.D. CAMB., DUB., HARV., AND MANC., LL.D. ABERD., F.R.S.

MINERALOGY, v. *Geol.*

MINING

COOKE, L. H., A.R.S.M., M.I.M.M., F.G.S. Im.
FRECHEVILLE, W., A.R.S.M. Im.

MUSIC (v. also *Educn.*)

BENNETT, G. J.,¶ 20.
BRIDGE, SIR FREDERICK, C.V.O.,**, M.A. DURH. K. Ed. Prof. 21.
CORDER, F., F.R.A.M. 20.
DAVIES, H. WALFORD,¶, LL.D., A.R.C.M. 21.
DAYMOND, EMILY R., A.R.C.M. 21.
DUNHILL, T. F., A.R.C.M. 21.

* Clinical. † R.C.P. ‡ R.C.S. || L.R.C.P., F.R.C.S.
¶ Mus.D. Camb. ** Mus.D. Ox.

GREENISH, A. J.,* 20.
HOLBROOKE, J. C. 22.
HORNER, E. F., D.MUS. DURH.,‡ 22.
MACPHERSON, S., F.R.A.M. 20.
MILES, P. H., A.R.A.M. 20.
MORGAN, R. O., A.G.S.M. 23.
PARRATT, SIR WALTER, M.V.O., MUS.D., M.A. OX.,* 21.
PARRY, SIR C. H. H., BART., C.V.O., †,*, D.C.L., LL.D., M.A. 21.
PEARCE, C. W.,* 22.
PRINGUER, H. T.,†, F.R.C.O. 22.
READ, F. J.,† 21.
ROBINSON, H., D.MUS. DURH., F.R.C.O., A.R.A.M. 23.
STANFORD, SIR C. V.,†, *, M.A., D.C.L., LL.D. 21.
WADDINGTON, S. P. 21.
WARRINER, J., MUS.D. DUB. 22.
WETTON, H. D., D.MUS. DURH., F.R.C.O. 23, 2.
WOOD, C., *, M.A., LL.D. 21.

PALÆOGRAPHY and Econ. Hist.
HALL, HUBERT, F.S.A. Reader E.

PHILOLOGY, Comp. (v. also *Langs.—Engl.* and *French*)
VACANT Prof.

PHILOSOPHY (v. also *Econ.*)
BROWN, W., M.A. OX., D.SC. Reader in *Psych.* K, KW.
CALDECOTT, A., M.A., D.LIT., D.D. CAMB. K, KW, KT.
EDGELL, MISS B., M.A. WALES, PH.D. WÜRZ. Reader in *Psych.* BW, 23*a*.
GREEN, S. W., M.A. (also in *Theol.*) R.
HICKS, G. D., M.A., LITT.D. MANC., PH.D. LEIP. U.
OAKELEY, HILDA D., M.A. MC G., FINAL HONS. LITT. HUM. OX. KW.
SHIELDS, FRANCES R., M.A. BW.
SPEARMAN, C. E., PH.D. LEIP. Grote Prof. U.
SULLY, J., LL.D. ST. AND., M.A. U.
WOLF, A., M.A. CAMB., D.LIT. Reader, *Logic and Ethics* U. (also recog. in *Logic and Scientific Method*) E.

PHONETICS
JONES, D., M.A. CAMB. U.

PHYSICS
ALLEN, H. S., M.A. CAMB., D.SC. K.
BRINKWORTH, J. H., B.SC., A.R.C.S. T.
CALLENDAR, H. L., M.A. CAMB., LL.D. MCG., F.R.S. Im.
CHARLESWORTH, J., M.SC. MANC. 8.
CLACK, B. W., B.SC. 3.
CLAY, R. S., B.A. CAMB., D.SC. 8.
EDSER, E., A.R.C.S. 1.
EUMORFOPOULOS, N., B.SC. U.
FISON, A. H., D.SC., A.R.S.M. G,L.
FORSYTH, R. W., A.R.C.S. Im.
GRIFFITH, O. W., B.SC., A.R.C.S. L.
GRIFFITHS, A., D.SC. MANC., A.R.C.S. 3.
HARLOW, F. J., B.SC., A.R.C.S. 10.
JORDAN, F. W., B.SC., A.R.C.S. 11.
LEES, C. H., D.SC. MANC., F.R.S. Prof. EL.
LOWNDS, L., B.SC., PH.D. BERL. 11.
MARSH, S., B.SC. WALES, PH.D. GÖTT. 2.
NICOL, J., B.A. CAMB., B.SC. 8.
OWEN, D., B.A. CAMB., B.SC. 3.
PHILLIPS, P., B.A. CAMB., D.SC. BIR. 1.
RANKINE, A. O., D.SC. U.
RICHARDSON, O. W., M.A., D.SC., F.R.S. Wheatstone Prof. K.
ROBINSON, J., M.SC. DURH., PH.D. GÖTT. EL.
SKINNER, S., M.A. CAMB. 11.
SMITH, S. W. J., M.A. CAMB., D.SC., A.R.C.S. Im.
STARLING, S. G., B.SC., A.R.C.S., A.I.E.E. 12.
STONEY, MISS E. A., M.A. DUB., M.T. I. AND II. CAMB. LW.
STRUTT, HON. R. J., M.A. CAMB., SC.D. DUB., F.R.S. Im.

* Mus.D. Camb. † Mus.D. Ox. ‡ F.R.C.O.

THOMSON, W., M.A., B.SC. EDIN. 2.
TROUTON, F. T., M.A., D.SC. DUB., M.I.E.E., F.R.S. Quain Prof. U.
TUCKER, W. S., B.SC., A.R.C.S., A.I.E.E. 12.
VINYCOMB, T. B., M.A. R.U.I. 13.
WATSON, W., D.SC., A.R.C.S., F.R.S. Im.
WHITE, W. H., B.SC., M.A. CAMB., A.R.C.S. SM.
WILLOWS, R. S., M.A. CAMB., D.SC. 10.
WILSON, W., PH.D. LEIP. K, KW.
WOMACK, F., M.B., B.SC. BW, B.

Applied Physics

THOMPSON, S. P., B.A., D.SC., LL.D. BIR., D.SC. BRIS., M.D., F.R.S. Prof. 5.

Astron. Physics

FOWLER, A., A.R.C.S., F.R.S. Im.

Optics

CHALMERS, S. D., B.A. CAMB., M.A. SYD. 7.

Thermodynamics [U.

PORTER, A. W., B.SC., F.R.S. Reader

PHYSIOLOGY (v. also *Chem.*)

BAYLISS, W. M., M.A., D.SC. OX., F.R.S. Prof. of *Genl. Physiol.* U.
BUCKMASTER, G. A., M.A., M.D., B.CH., M.R.C.S., D.P.H. OX. Reader in *Ap. Physiol.* U, 9.
CULLIS, WINIFRED C., D.SC., N.SC.T. I. AND II. CAMB. Reader LW.
EDKINS, J. S., M.A., M.B., SC.D. CAMB. BW, B.
ELLISON, F. O'B., B.A., M.D., B.CH., B.A.O. DUB. SM.
HALLIBURTON, W. D., M.D., LL.D., B.SC.,*, F.C.S., F.R.S. Prof. K.
HILL, L. E., M.B.,†, F.R.S. Prof. L.
LOCKE, F. S., M.A. CAMB., M.D. K.
MELLANBY, J., M.A., M.D. CAMB. T.
MYERS-WARD, C. F.,† K.
PEMBREY, M. S., M.A., M.D., B.CH. OX. Reader G.
ROAF, H. E., M.D. TOR., D.SC. LIV.† SM.
ROSENHEIM, O., PH.D. WÜRZ. K.
STARLING, E. H., M.D., B.S.,*, F.R.S. Jodrell Prof. U.
SYMES, W. L., M.R.C.S. 23*a*.
WALLER, A. D., M.D., C.M. ABERD., LL.D., F.R.S. (Dir. of Lab.) Prof. 23*a*.

POLITICAL ECONOMY, v. *Econ.*

POLITICAL THEORY

DICKINSON, G. L., M.A. CAMB. E.

PROTOZOOLOGY

MINCHIN, E. A., M.A. OX., F.Z.S., F.R.S. Prof. LI.
WENYON, C. M., B.SC., M.B., B.S. TM.

PSYCHOLOGY, v. *Philos.*

PUBLIC ADMINISTRATION

HURST, G. H. J. (v. *Law*) 3.
REEVES, HON. W. P. (*P.A.* and *Hist.*) E.
SMITH, H. B. L., M.A. OX., M.P. (*P.A.* and *Economics*) E.
WALLAS, GRAHAM, M.A. OX. (also recog. in *Hist.*, *Const.*) Reader E.
WEBB, S. J., LL.B. Prof. E.

Public Health, v. *Hygiene*

SOCIOLOGY (v. also *Ethnol.*, *Stats.*, *and Eng.*)

Martin White Profs. E.

HOBHOUSE, L. T., D.LITT., M.A. OX.
WESTERMARCK, E. A., PH.D. HELS., LL.D. ABERD.

STATISTICS [Reader E.

BOWLEY, A. L., M.A. CAMB., SC.D.

SURVEYING, v. *Engin.*

THEOLOGY (v. also *Philos.*)

ANDREWS, H. T., B.A. OX. N, H.
BISSEKER, H., M.A. CAMB. WR.
BOX, G. H., M.A. OX. KT.
CALDECOTT, A. (v. *Philos.*) KT.

* F.R.C.P., M.R.C.S.

† L.R.C.P., M.R.C.S.

COMPSTON, H. F. B., M.A. OX. KT.
DAVIES, W. A., B.A. OX. AND WALES, B.D. N, H.
DAVISON, W. T., M.A., D.D. WR.
FORSYTH, P. T., M.A., D.D. ABERD. H.
GARVIE, A. E., M.A. GLAS. AND OX., D.D. GLAS. N, H.
GEDEN, A. S., M.A. OX., D.D. ABERD. WR.
GOULD, G. P., M.A. GLAS. R.
GREENUP, A. W., M.A. DUB. AND CAMB., D.D. (ONT.), LITT.D. J.
HEADLAM, A. C., M.A. OX., D.D. OX. AND ABERD. KT.
LEGG, S. C. E., M.A. CAMB. KT.
MATTHEWS, W. R., M.A., B.D. KT.
NAIRNE, A., M.A. CAMB. KT.
NEWSOM, G. E., M.A. OX. KT.
SCULLARD, H. H., M.A. CAMB., D.D. N, H.
SMITH, H., M.A. CAMB. J.
TITTERTON, C. H., M.A., B.D. EDIN. J.
WHITE, H. J., M.A. OX., D.D. ST. AND. KT.
WHITNEY, J. P., M.A., B.D. CAMB., D.C.L. BISH. AND T.C. (TOR.) KT.

TRANSPORT, Economics of (v. also *Law*)
STEPHENSON, W. T., B.A. CAMB. E.

VETERINARY SCIENCE
CAVE, T. W., F.R.C.V.S. Ag.
Vet. Anatomy
SHAVE, E. S.,*, † 9.
Vet. Hygiene
WOOLDRIDGE, G. H.,† Reader 9.
Vet. Path. and Bacteriology
MCFADYEAN, SIR JOHN, LL.D., M.B., C.M., B.SC. EDIN.,‡, F.R.S.E. Prof. 9.

ZOOLOGY (v. also *Ag.*, *Protoz.*)
ASSHETON, R. (v. *Biol.*) G.
BUCHANAN, FLORENCE, D.SC. Ho.
CUNNINGHAM, J. T., M.A. OX. H.
DENDY, A., D.SC. MANC., F.R.S. Prof. K, KW.
MACBRIDE, E. W., M.A. CAMB., D.SC., LL.D. MCG., F.R.S. Im.
O'DONOGHUE, C. H., D.SC. U.
RIDEWOOD, W. G., D.SC. Reader SM.
ROW, R. W. H., B.SC. K.
TIMS, H. W. M., M.A. CAMB., M.D., CH.M. EDIN., F.L.S., F.Z.S. Reader BW.
UNTHANK, H. W. (v. *Biol.*) 3.
Zool. and Comp. Anat.
HILL, J. P., D.SC. EDIN., F.R.S. Jodrell Prof. U.
Medical Zoology
ALCOCK, LT.-COL. A. W., C.I.E., C.M., M.B., LL.D. ABERD., F.R.S. TM.

CHANGES IN STAFF

of Univ. Profs. and Readers during and since the Session 1912–13.§

Andrewes, F. W. (P), Pathology.
Barger, G. (P), Chemistry.
Barkla, C. G., Prof. of Physics, resigned on apptmt. to chair in Edin.
Boycott, A. E., Reader in Path., resigned on apptmt. to chair in Liv.
Brown, F. (P), Fine Art (Slade).
Brown, W. (R), Psychology.
Crossley, A. W. (P), Chemistry.
Donnan, F. G. (P), Chem., Genl.

* L.R.C.P., M.R.C.S. † F.R.C.V.S. ‡ M.R.C.V.S.
§ (P)(R) Appointed Prof., Reader by the Univ. or, having been appointed by some other body, received the title of Univ. Prof., Univ. Reader.

Edgell, Miss B. (R), Psychology.
Greenish, H. G. (P), Pharmaceutics.
Hearnshaw, F. J. C. (P), Mediæval History.
Hilton, H. (P), Mathematics.
Hurst, G. H. J. (R), English Law.
Jameson, A. H. (P), Civil Engineering.
Johnstone, Miss H. (R), History.
Lamb, E. H. (P), Civil and Mech. Engineering.
Lee, Sir Sidney (P), English Language and Literature.
Lowry, T. M. (R), Chemistry.
Mantoux, P. J. (P), Modern French History and Institutions.
Meldola, R. (P), Chemistry.
Nicholson, J. W. (P), Mathematics.
Pembrey, M. S. (R), Physiology.
Ramsay, Sir William, K.C.B., LL.D., Sc.D., Ph.D., M.D., F.R.S., &c., Prof. of Genl. Chem., resigned and received title of Emeritus Prof. of Chem.
Rudler, G. (P), French Literature.
Seligmann, C. G. (P), Ethnology.
Shattock, S. G. (P), Morbid Anatomy.
Slater, C., M.A., M.B., M.R.C.S., F.C.S., Reader in Bacteriology, resigned.
Spurgeon, Miss C. F. E. (P), English Literature.
Thomas, Miss E. N. (R), Botany.
Thomas, P. G. (R), English Language and Literature.
Thompson, S. P. (P), Physics.
Tims, H. W. M. (R), Zoology.
Wooldridge, G. H. (R), Veterinary Hygiene.

GENERAL INFORMATION

[NOTE. *The Univ. authorities desire to emphasize the caution given in the Preface. They can accept no responsibility for any information concerning examns. or procedure except such as is contained in their own official Regns. These can always be obtained on application at the Univ. offices.*]

RELATIONSHIP TO INCORPORATED COLLEGES, THE SCHOOLS, AND OTHER INSTITUTIONS. A Royal Charter constituting the Univ. of London as a body empowered to grant degrees to students of approved institns. after examn. was granted on Nov. 28, 1836; and on the same day a Charter of Incorporation was granted to Univ. Coll. By the Univ. Charter the two great London Colls.—Univ. and King's (which latter had received a Charter of Incorpn. in Aug. 1829)—were made to stand in the same relation to the Univ., both being approved as institns. whose students were entitled to present themselves for degrees. From 1836 to 1900 the work of the Univ. was restricted to the examn. of students. The system whereby entrance to the examns. of the Univ. was restricted to students of certain affiliated Colls. was removed by the Charter of 1858 for all examns. except those in Med.

In 1900 the Univ. was reconstituted, the main purpose of the reconstitution being to strengthen the ties between the Univ. and the institns. engaged in Higher Education within the appointed radius of 30 miles. To this end, certain educational institutions have been admitted as "Schools of the Univ." The Senate are empowered to admit as Schools of the Univ. institns. situated within the administrative County of London which provide education of Univ. standard and are not carried on for the private gain or profit of the body or persons to whom the institn. belongs. A special form of recognition may be given to an institn. situated within the county area and founded for the purpose of research or the cultivation of any special branch of science or learning. The Senate have power also to recognize as Teachers of the Univ. any members of the teaching staff of public educational institutions within the appointed radius, whether Schools of the Univ. or not. The Senate are required under Statute 76 to obtain reports at prescribed intervals on the efficiency of the Schools of the Univ.

In view of the close connexion which has always existed between the Univ. and Univ. Coll. and King's Coll., special interest attaches to the incorporation of these Colls. in the Univ., which was provided for by special Acts of Parliament, dated July 11, 1905, and Aug. 1, 1908, respectively, and took place, as regards the former on Jan. 1, 1907, and as regards the latter on Jan. 1, 1910. On the last-mentioned date the former Women's Dept. of King's Coll. was incorporated in the Univ. as Univ. of Lond., King's Coll. for Women.

Other institns. belonging to the Univ. are the Goldsmiths' Coll. at New Cross, opened on Sept. 29, 1905, as a Training Coll. for Teachers; the Brown Animal Sanatory Institn.; the Physiological Laboratory; and the Francis Galton Laboratory for National Eugenics, with which is associated the Drapers' Company Biometric Laboratory (*v.* p. 267).

Faculties. Arts, Science, Theology, Laws, Medicine, Music, Engineering, Economics and Political Science (including Commerce and Industry).

Standing Committees of the Senate. (1) The Academic Council; (2) the Council for external students; (3) the Board to promote the extension of University Teaching. These advise the Senate on matters relating to (1) the Internal work of the Univ.; (2) External students; and (3) Univ. Extension work, examination and inspection of Secondary Schools and other matters.

Admission to the University. All persons who pass the *Matriculation* examn. of the Univ. itself or its Senior School examn. (*v. infra*), or an examn. for Colonial and Foreign Students held in accordance with certain conditions under Statute 116 of the Univ., become *ipso facto* Matriculated Students of the Univ. In addition certain other examns. are accepted on conditions as exempting from the Univ. Matricn. examn.

The Univ. holds a Matricn. examn. 3 times a year in London and twice a year in certain Provincial Centres open to all persons of 16 yrs.

of age and upwards. Every candidate must pass on one and the same occasion in 5 subjects, and no candidate can offer more than 5. Of these Engl. and Maths. are compulsory. The 3rd must be either Latin or Greek or a scientific subject. The 4th and 5th can be selected from a list of subjects, provided that, if neither Latin nor Greek has been chosen as the 3rd subject, one of the two must be a language. The Matricn. examn. can also be held by special arrangement in any of the British Colonies or Dominions.

Students who pass the Senior School examn. (*see* p. 273) in a combination required for Matricn. are registrable as Matriculated Students of the Univ.

For the benefit principally of foreign candidates the "Examn. under Statute 116" has been instituted, to which candidates can be admitted on production of a certif. from an educational authority showing evidence of an education *prima facie* equivalent in their own country to that required in England for the Matricn. examn. Such candidates are then examined orally and by papers and with special reference to the line of study they propose in the Univ., and if successful in this examn. are admitted as Matriculated students. Students who have matriculated in a Univ. in any British Colony are admissible to this examn., which is only held in London, and which it has been the practice to hold about 5 times a year. A candidate who attains the age of 19 between Jan. 14 and July 31 of any year will be admissible to any examn. held between those dates or subsequently; and a candidate who attains the age of 19 between Aug. 1 of any year and Jan. 14 in the year next ensuing will be admissible to any examn. held between those dates or subsequently.

The total number of candidates matriculated by these various methods during the year 1912 was 4158.

Degrees, &c. Arts—B.A., M.A., D.Lit., several Diplomas; Science—B.Sc. [Bachelor of Science, of Science (Agric.), or of Science (Vet. Science)], M.Sc., D.Sc.; Theology—B.D., D.D.; Laws—LL.B., LL.D.; Medicine—M.B., B.S., M.D., M.S.; Music—B.Mus., D.Mus.; Engineering—B.Sc. [Bachelor of Science (Engineering), of Science (Mining), or of Science (Metallurgy)], D.Sc.; Economics—B.Sc., D.Sc.

External and Internal Students. The Univ. (except in the cases of Med., Mining, and Archit.) admits External students to all examns. for the degrees without making requirements in regard to the course of study which they have pursued; they may pursue their studies where and how they please. Internal students are not admitted to the corresponding examns. unless they have pursued a course of study approved by the Univ. and carried on in the Univ. or institns. connected therewith.* The examns. for Internal and External students are in some cases separate, in others identical, but the Statutes require

* Statute 125 provides, however, that a course of study extending over not more than 1 yr. taken in another Univ. approved for the purpose (Paris and Caen have been so approved) subsequently to a student's passing the Interm., may be accepted subject to regns. in lieu of a course taken in this Univ.

that "the degrees conferred on both classes of students shall represent as far as possible the same standard of knowledge and attainments."

Examinations in the Overseas Dominions. Certain of the examns. of the Univ. for External students are held not only in London and at Provincial centres within Great Britain, but also in certain of the overseas Dominions of the Empire. In India, only the examns. in the Faculty of Theol. are thus held, but the Matricn. examn. and the examns. in Theol., in Arts, in Laws, and in Economics have been held at numerous Colonial centres. In Ceylon the Univ. examns. in Science have also been held under special arrangement; in this latter case with certain modifications of the Regns., such as have made them suitable for the special needs of the Colony in question; with the result that the Ceylon Govt. now awards its scholarships upon the results of these Univ. examns. The following list, which is a growing one, shows the centres at which such examns. have been held since Jan. 1901: Accra, Allahabad, Antigua, Auckland, Bahamas, Barbados, Bermuda, Brisbane, Brit. Guiana, Cape Town, Ceylon, Christchurch (N.Z.), Dominica, Dunedin, Fiji, Goulbourn, Grenada, Halifax (N.S.), Hobart, Honduras, Hong-Kong, Kingston (Jamaica), Kingston (Ont.), Johannesburg, Lagos, Malta, Mauritius, Melbourne, Nelson (N.Z.), Newf'land, Palmerston, Penang, Perth (W.A.), Pietermaritzburg, St. Lucia, Seychelles, Sierra Leone, Stellenbosch, Sydney, Tonga, Trinidad, Victoria (B.C.), Wellington (N.Z.), Winnipeg.

External students preparing for the Bachelorship undergo Intermediate and Final examns. at intervals prescribed in the Regns., and approximating (except in Med. and Vet. Sc.) to 3 yrs. in all. For conditions on which degrees are conferred in Med. and Vet. Sc. the separate Regns. should be consulted.

An Internal student before being allowed to enter as such for any examn. must, unless specially exempted, have attended Instruction courses in all the subjects thereof. For a first Degree in any Faculty he must have completed an Approved Course of Study extending over at least 3 yrs., which must, unless the Senate, on the ground of illness or other cause, determine otherwise, have been continuously pursued, but it is not required that the whole of the course shall be taken at the same institn. A minimum number of hours of attendance is as a rule prescribed for each course, and a reduction is allowed in the case of an evening student who is certified by an employer to be engaged in his service for not less than 25 hours a week. The Interm. course generally extends over 1 yr. There are no Honours in connexion with the Interm. examns. for Internal students. As a general rule, Honours may be taken at the Final examns., the Honours list being generally published in 3 classes. A student who proposes to take Honours as an Internal student in any Faculty other than Theol., Med., and Engin. is required to submit his proposed Course of Study for the approval of the Senate.

Terms. As a general rule the Session at Schools of the Univ. is divided into 3 terms. It begins in Oct. and ends in June or July,

with vacations of 2 or more weeks at Christmas and Easter. At the Med. Schools the teaching year is usually divided into 2 sessions—Oct. to end of March, and April to July. Terms for Univ. and Intercoll. courses for the session 1913–14: Oct. 2 to Dec. 17; Jan. 15 to March 25; April 30 to July 1.

N.B. In the following notes regarding the several Faculties the Institns. in which the courses may be taken by Internal students are indicated by Index letters and numbers referring to the list on p. 272 above.

Arts. U, K, Ho, BW, EL, Wf, 1, 3, 4, 6, 8, 11 (Pedagogy—K, BW, Tr, 14, 15, 16). In both Interm. and Final (Pass) examns. 2 langs. must be taken, including either Latin with Rom. Hist., or Greek with Greek Hist. Hist. of Archit. and Milit. Science have lately been added to the optional subjects for the Interm., and Anthrop. and (in and after 1915) Milit. Science to those for the Final. External students may take Honours papers in certain subjects in the Interm. examn. Chinese and Welsh are among the langs. that may be taken by External students at the Final (Pass) examn. The Honours subjects for the Final examn. are Archæol., Archit., Chinese, Classics, Hebrew and Aramaic (including Syriac), Hist., Maths., Philos., Psych., Engl., French, Ger., Ital., Russ., Span.; also Celtic for External students, and for Internal students Classical Sansk. and Pali, Arabic, and Persian.

The M.A. degree is conferred in Archæol., Class., Hist., Maths., Mediæval and Mod. Langs., Oriental Langs., Philos., and, for External students, Educn. *Internal* students are required (except in Maths.) to submit a thesis, and in some cases candidates must have taken Honours at the B.A. examn. *External* students may take the M.A. examn. 2 yrs. after graduation in Arts. For them a thesis is optional. Those who do not present one take additional papers. Candidates may only take 1 branch or section at a time. In most there is a *viva-voce* examn.

The D.Lit. degree is open to M.A.s only (except as regards students registered as Internal students under Statute 113 and specially excused the M.A. examn., *v.* p. 268), and is conferred for original work.

Diplomas.—(1) Teacher's, (2) Higher Dip. in Pedagogy, (3) Fine Art. (1) and (2) are open only to graduates and others similarly qualified; (2) and (3) only to Internal students: *v. also* p. 272.

Science.* U, K, Im, Ho, BW, EL, 1, 2, 3, 4, 8, 10, 11, 12, 13 (Agriculture—A; Vet. Sc.—9). For the Interm. examination Pure Maths. or Applied Maths. or Phys. must be taken with 3 other subjects. Milit. Sc. has lately been added to the list. External students may take Honours papers in certain subjects. For the Final (Pass) examn. any 3 subjects may be selected from a list to which Anthrop. and (with effect from 1915) Milit. Sc. were lately added, and which, for External students only, includes Logic and Methodology. An Honours student is not required to take the Pass examn. He selects 1 prin-

* *v.* N.B. *above.*

cipal subject and (except in the case of a candidate for Honours in Human Anatomy and Morphology) one subsidiary subject. For the Degree in *Agriculture* the Interm. examn. includes Chem., Bot., Zool., and 1 subject selected from a list of 4; the Final—Agric., Agric. Chem., Agric. Bot., and for External students 2 selected. Internal students may take the B.Sc. "by Research" under certain conditions in Science or Agric., *v.* p. 268. For the Degree in *Vet. Sc.* there are 4 examns. to be taken in their proper order: Prelim. (Inorg. Chem. and Phys.), Interm. Pt. I (Org. and Applied Chem., Genl. Biol., and Vet. Anat.), Pt. II (Vet. Physiol.), and Final (Vet. Pathol. and Vet. Hyg.). There is no Doctorate in Agric. or in Vet. Sc., Bachelors of Science (Agric. or Vet. Sc.) being held to be eligible for the ordinary D.Sc.

THEOLOGY.* N, H, R, KT, WR, J. The Honours examn. is distinct from the Pass, and may be taken 1 yr. after graduation in Div. Honours may be taken in 1 subject only at any one examn. The subjects for Honours are Hebrew and Aramaic, including Syriac, Greek N.T. and Apocrypha, Church Hist., Bibl. and Hist. Theol., Study of Religion. Candidates for the D.D. degree must have taken Honours in Theol. in this Univ.

LAWS.* U, K, and E (under a joint scheme). The subjects for the Interm. examn. are Hist. of Rom. Law, Engl. Const. Law and its Hist., and Jurispr. Among the subjects for the Final are included Mohammedan Law and Hindu Law. Candidates for the LL.D. degree must have taken Honours at the LL.B. examn. (except in the case of students registered as Internal students under Statute 113 or 129 and specially exempted therefrom, *v.* p. 268).

MEDICINE. *See* the Med. Schools and Institns., pp. 293 *et seqq.* For courses in Prelim. and Interm. Med. Studies students of *SG, W, and C attend U or K.

The course extends normally over 5½ yrs. In the 1st yr. courses in Inorg. Chem., Phys., and Genl. Biol. in preparation for the 1st examn. for Med. degrees are taken. The 2nd and 3rd yrs. are devoted to Org. and Applied Chem. (the only subject at Pt. I of the 2nd examn., taken not less than 6 mos. after passing the 1st), Hum. Anat. and Embryol., Physiol., Pharmacol., including Pharmacy and Mat. Med. Pt. II of the 2nd examn. is normally taken 2½ yrs. after Matricn. In the Final course for the M.B., B.S. degrees the subjects are divided into 2 groups as follows: Group I—Med., Path., For. Med., and Hyg.; Group II.—Surg., and Midw. and Dis. of Women. The groups may be taken separately or together, but degrees are not conferred until candidates have passed in both groups.

The M.D. degree may be taken in any of the following: Med., Path., Ment. Dis., Midw. and Dis. of Women, State Med., Trop. Med.

The M.S. may be taken in Surg. or Dent. Surg.

For the M.D. or M.S. a thesis or published work may be submitted.

* *v.* N.B. *above*, p. 264.

MUSIC.* 2, 20, 21, 22. The subjects for the Interm. examn. are Harmony, Counterpoint, and Hist. of Mus. For the B.Mus. the subjects of examn. are Harmony; Counterpoint, Fugue, and Canon; Free Composition; Hist. of Music; and Musical Analysis. Every candidate for the B.Mus. must submit a musical exercise. For the D.Mus. there is a written examn., and a musical exercise is also required.

ENGINEERING.* U, K, EL, 2, 7, 8, 11, 12, 13. The same Interm. examn. is taken by all students whether intending to graduate in Engin., Mining, or Metall., the subjects being: Pure Maths. and Applied Maths., Heat, Elec. and Magn., Engin. Drawing and Design, and *either* Sound and Optics *or* Chem. *or* Geol. In the Final examn. in *Engin.* not less than 5 subjects are taken, a wide choice being allowed. In the Final examn. in *Mining* 6 subjects must be taken, of which Geol. and Mineral., Elec. Tech., Mining, Mine Surveying and Assaying are compulsory; in *Metall.* 5 subjects must be taken, of which Mineral., Elec. Tech., Metall., and Assaying are compulsory. For an Honours degree in Engin., Mining, or Metall. at least 1 extra subject must be taken at the Final examn. and a higher standard reached in all the subjects taken. The B.Sc. "by Research" in Engin. for Internal students may be taken under certain conditions, *v.* p. 268.

ECONOMICS.* U, E, 3, 4. The subjects for the Interm. examn. are Econ., British Constitn., either Maths. or Logic and Scientific Method, Geog. For the Final (Pass)—(1) Econ., including Statistics, (2) Pub. Administrn., (3) either Hist. or Accounting and Business Organizn., and (4) one of the following: Accounting, if not taken under (3); Industr. and Comml. Law; Const. Law and Hist.; Pub. Internat. Law; Geog. Honours students take Econ.; either Hist. or Accounting and Business Organizn.; Pub. Administrn.; a 4th subject to be chosen from a list of 13. At both the Pass and Honours examns. passages are set from French and German works for translation and comment.

THE DOCTORATE. A candidate for the Doctor's degree in any of the Faculties must at least 2 years previously have taken the Bachelor's degree (except in the case of certain candidates registered as Internal students under Statute 113, *v.* p. 268).

MILITARY EDUCATION. London is one of the 8 Univs. which have established approved courses of instruction entitling them to nominate candidates for commissions in the Regular Army.† The selection of qualified students is made by a Nomination Board consisting of the members of the Milit. Educn. Committee together with one or more Milit. members appointed by the War Office, who have the right of veto on any selection. An Internal degree in one of the Faculties other than Theol., Med., and Music is one of the necessary qualifications.

Officers Training Corps. A Univ. Contingent (C.O.—Lt.-Col. D. S. Capper, M.A.; Adjt.—Capt. A. L. Godman, Yorkshire Regt.), established in 1909, consisted in July 1913 of a section of Field Artillery, an Engin.

* *v.* N.B. *above*, p. 264. † *v.* Appendix II.

company, a Battalion of 6 companies of Infantry, an A.S.C. company, and 4 sections of a Field Ambulance; the strength of the Contingent was 27 officers and 739 cadets. Admission is ordinarily confined to members of the Univ. and other students pursuing a regular course in Schools of the Univ.

Post-graduate Study and Research. *The Brown Animal Sanatory Institution* (Supt.—F. W. Twort, M.R.C.S., L.R.C.P.) was established in 1871 under the conditions of a bequest for "investigating, studying, and, without charge beyond immediate expenses, endeavouring to cure maladies, distempers, and injuries, any quadrupeds or birds useful to man may be found subject to," and is under the government of the Univ. It is situated at 149 Wandsworth Rd., Vauxhall, S.W. It contains 2 depts.: the Hospital, in which the diseases and injuries of animals are treated, in the conduct of which the Supt. has, as his assistant, a fully qualified Vet. Surgeon who resides on the premises; and the Laboratory, where the investigation and study of diseases of animals are carried on by and under the immediate direction of the Supt. Both In and Out Patients are treated. Clin. students may be admitted to the Vet. depts., and Research students are received in the Lab.

A *Physiological Laboratory* (Director—Prof. A. D. Waller, F.R.S.) in the Univ. Building, established in 1902, comprises a lecture-room, a workshop, a library, and rooms assigned to the depts. of Physiol. Chem., Chem. Path. and Pharmacol., Electrophysiol., Genl. Exper. Physiol., and Exper. Psych. Courses of lectures on current research are given to Univ. students by Lectrs. of the Univ. and other duly accredited Physiologists, and a limited number of duly qualified students are admitted as lab. workers.

The Francis Galton Laboratory for National Eugenics, together with the Drapers' Company Biometric Lab., form a Department of Applied Statistics, which is housed at University College. The Galton Lab. was founded in 1904 "for the study of those agencies under social control that may improve or impair the racial qualities of future generations, either physically or mentally." It is used (i) as a research laboratory; (ii) as a storehouse for statistical material bearing on the mental and physical conditions in man, and the relation of these conditions to inheritance and environment; and (iii) as a centre for the publication or other form of distribution of information concerning National Eugenics. The Lab. is under the supervision of Prof. Karl Pearson, F.R.S. Provision is made for training in statistical methods and for assisting research workers in special Eugenic problems. Short courses of instruction are provided for those engaged in social, anthropometric, or medical work, and desirous of applying modern methods of statistical analysis to the reduction of their observations. New buildings, given by an anonymous donor, are now in course of erection.

Under the *Statutes, Sec.* 74, the Senate are empowered to admit "any institn. founded for the promotion of science or learning within the Administrative County of London as a School of the Univ. for the purpose of research or the cultivation of any special branch of science

or learning." The only institn. which has been admitted under this sec. is the *Lister Inst. of Prev. Med.*, *v.* p. 298. Another School, that of *Tropical Medicine*, is devoted exclusively to post-grad. and research work. In most of the Schools special arrangements are made for research students.

The facilities for post-grad. work offered by the Schools and Institns. of the Univ. are not restricted to Internal grads. By the *Statutes, Secs.* 113 *and* 129, External grads., grads. of other approved Univs., and persons who have passed examns. equivalent to those required for a degree in these Univs. are allowed, under certain conditions, to enter as Internal students for the degree of Doctor in the several Faculties, and for the degree of M.A. A student desirous of taking a higher degree under these Secs. of the Statutes is required to produce a certif. from the Governing Body of a School of the Univ., or from a Teacher or Teachers of the Univ., stating that the student is in their opinion a fit person to undertake a course of study or research with a view to the degree selected. Students whose applications are approved are required to pursue a course of study extending over at least 2 yrs. In July 1913 there were approximately 90 students (69 men and 21 women) registered as preparing for Higher Degrees under Sec. 113 of the Statutes. They were studying for the D.D. (4); M.A. (26); LL.D. (3); D.Mus. (1); D.Sc. (35); D.Sc. in Engin. (1); and D.Sc. in Econ. (20). They came from Camb. (29), Ox. (10), Manc. (6), Durh. (5), Wales (5), Calc., Liv., Melb. (3 each), Aberd., Cape, Dub., Edin., Glas., Madras, Syd. (2 each), and various other British and foreign Univs. There were 73 registered under Sec. 129.

The B.Sc. degree, in the Faculties of Science, Engin., and Econ., may also be taken "by Research" by Internal students under Regns. which have been approved by the Senate, in accordance with the *Statutes, Sec.* 112. Candidates must have attained the age of 19 and must have passed the Interm. examn. The research must extend over a period of at least 2 yrs.

The courses for the Pedagogy Diplomas are post-graduate.

The Univ. arranges every year for the delivery of *Lectures for Advanced Students* by Profs. of other Univs. and other distinguished visitors. During the Session 1912–13 such lectures were given by Profs. of Ox., Halle, Paris, Wales, Glas., Berl., Tor., Strass., Wisc., by an Inspr.-Genl. of the French Ministry of Pub. Instrn., the Solicitor-Genl. of N.Z., and many other high authorities. The subjects dealt with were very various, including some belonging to each Faculty except Music.

Scholarships, &c., open to Graduates. Studentships are awarded by the Senate in aid of advanced work or research. These include the Sir George Jessel £50 p.a. for 1 or 2 yrs., which is open to students of Univ. Coll. and is given for Maths.; the Lindley £100 and the Univ. £50 for Physiol.; the George Smith £100 for Arts, awarded on the results of the B.A. Honours examn.; and the Mitchell £100 for Econ. The Gilchrist Trustees provide funds for two Studentships, viz. one of £100 for a woman graduate who is preparing for a profes-

sion ; and one in Mod. Langs., £80, open under certain conditions to grads. of either sex who have taken Honours in French or German at the B.A. examn. and are desirous of pursuing a course of study abroad with a view to the profession of teaching. Three Ouseley Memorial and 2 Gilchrist Scholarships of £50 each for 1 yr. are awarded annually for proficiency in Oriental Langs. on the results of an examn. in July. Further details regarding these and other Studentships, &c., open to grads. will be found in the Scholarships Pamphlet obtainable post free on application to the Univ.

An Appointments Board (Secy.—H. J. Crawford, B.A.) was recently constituted by the Senate to assist grads. and students of the Univ. and to co-ordinate and supplement the work done by the Schools and Institns. of the Univ. in this direction. It registers the qualifications of : (*a*) Grads. of this Univ. ; (*b*) Grads. of other Univs. who are students of London ; (*c*) Undergrads. in their last term previous to entry on Degree examns. In the last 6 mos. of the academic year 1912–13 some 1240 different vacancies were notified to suitable registered grads. The only fee charged is a registration fee, at present fixed at 5s., for the year the name is retained on the Registers.

Women. In 1878 the Univ. agreed to accept a supplementary charter making every degree, honour, and prize awarded by it accessible to students of both sexes on equal terms. It was thus the first academic body in Great Britain to admit women as candidates for degrees.

Residential Facilities. The following hostels have been recognized by the Senate : More House, Chelsea, forming part of the scheme for the Univ. Hall of Residence, opened in Nov. 1907 ; Univ. College Hall, Ealing, opened in Nov. 1908, for students of Univ. Coll. ; College Hall, Byng Place, Gordon Square, W.C. (for women students). Residence is provided at certain Theol. Colls., at the S.E. Agric. Coll., Wye, and by the following Hospl. Med. Schools : Bart's, Guy's, Middlesex. All the larger Colls. keep registers of approved lodgings. Residence is provided for women in connexion with King's, King's Coll. for Women, Holloway, Bedford, Westfield, and the Lond. School of Med. for Women.

The Libraries belonging to, and connected with, the Univ. contain in the aggregate about half a million vols. distributed over every branch of knowledge. In recent years the Senate have put in operation a scheme of centralization for welding together these previously independent units so as to avoid as much as possible waste and overlapping. They are of 3 classes, having distinct functions, which cannot be united successfully in one library in the case of a federal Univ. such as London. The Univ. Library is intended to be so constituted as to provide well-equipped special collections to promote research work, and also to serve as a lending library from which students can borrow expensive works, thus avoiding an extravagant multiplication at the various educational centres of works which are only required from time to time.

In another category are the "Seminar" Libraries at Univ. Coll., the function of which is to prepare the student for the use of research libraries, to teach him how to find his materials, how to test their genuineness, and how to weigh the value of their evidence. Thirdly, there are the working libraries at the various Schools and Colls. of the Univ., the function of which is the provision of books for immediate use.

The Central Building at S. Kensington contains in the General Univ. Library and the Goldsmiths' about 100,000 vols. and pamphlets. The former consists of special collections and standard works chosen chiefly on account of their rarity and inaccessibility to students. It is strong in works on Hist., and there are also a number of journals, proceedings of learned societies, and other periodicals. The special collections include: (*a*) Augustus de Morgan's rare and curious books mostly on Maths. and Astron.; (*b*) the books on Hist. and Latin and Greek Classics bequeathed by George Grote, a former Vice-Chancellor; (*c*) Russian and other books presented by Vice-Chancellor Sir J. G. Shaw-Lefevre; (*d*) a library of recently published books and periodicals on Physiol. established in connexion with the Physiol. Lab.; (*e*) a reference section of bibliographies; (*f*) a collection of theses, both of London and other Univs. The Lady Welby Library (1500 vols. and 1000 pamphlets) consists chiefly of works on Theol., Philos., Econ., Educn., Science, and Philol., which were collected and annotated by the late Hon. Victoria, Lady Welby. It was presented by Sir Charles Welby in 1912, conditionally on its being kept together and housed in the Central Building of the Univ. It is available, under safeguards, for students of any nation, and its use is not limited to members of the Univ. The *Goldsmiths' Library of Economic Literature* (45,000 vols. and pamphlets), collected by Prof. H. S. Foxwell to serve as a basis to the study of the industrial, commercial, monetary, and financial history of the U.K. as well as the gradual development of econ. science generally, is one of the finest econ. libraries in the world. It is of 39 years' growth, the first impulse to its formation coming from the late Prof. Stanley Jevons about 1875. It was presented to the Univ. by the Goldsmiths' Company in 1903 conditionally on its being always kept together at the Central Building. The history of econ. thought is practically complete in so far as England is concerned, and very full in respect of the French economists before and during the Revolutionary period. There are a large number of MSS., many of exceptional interest, autograph letters, and portraits of economists and statesmen. The Railway section includes a collection which formerly belonged to John Urpeth Rastrick. Among other special collections are that of Richard Oastler on factories, a valuable set of Factory Commission and similar reports, and the Sabatier Collection of about 1000 pieces on French monetary history, particularly of the Revolutionary period. There are valuable sets of econ. periodicals, a large number of which are in progress and kept up to date.

The Library of Univ. Coll. (130,000 vols. and 17,000 pamphlets) has been grouped into a number of classified training sections into which a Prof. can take his students to instruct them in methods of research. It includes a collection of about 2500 books on Pol. Econ.,

established in memory of David Ricardo ; Joseph Hume's Parliamentary library, including some 5000 polit. and econ. tracts ; papers and correspondence of Jeremy Bentham ; Chinese Library (over 9000 vols.) of Robert Morrison ; Law Library of William Blackburn of Lincoln's Inn (2486 vols., including many early printed books) ; Library of Edward Holme, physician of Manchester (9776 vols. and 5029 pamphlets) ; that of J. Bentham Mill ; that of Prof. James Morris (8500 vols.), rich in classics ; Math. Library of Prof. J. T. Graves (15,000 books and pamphlets), containing a large number of rare and early printed books and a few MSS. ; Quain Law Library. The Science Library, which contains about 25,000 vols., includes chemical books bequeathed by Profs. G. Fownes and T. Graham ; works on Zool. and Zootomy bequeathed in 1874 by Prof. R. E. Grant ; works illustrating the development of physiol., collected by Prof. W. Sharpey ; and the library transferred to the Coll. by the Geol. Assocn. The Arts Libraries comprise Dr. H. C. Barlow's collection relating to Dante and Italian lit. and the Leighton (Philos.) ; Strong (1000 vols., chiefly Oriental texts and grammars) ; Mocatta (Jewish Hist. and Antiq., 5000 vols.) ; Whitley Stokes (Celtic, 3000 vols.) ; Yates (Class. Antiq. and Epigraphy) ; and the Edwards (Egyptol.) Libraries.

The Library of King's Coll. contains about 30,000 vols., including Sir Charles Wheatstone's (Electricity, Phys., and Maths.) ; W. Marsden's (Oriental) ; and Prof. Skeat's and Dr. P. Furnivall's (English) collections.

Numerous special collections are to be found in the several Schools of and Institutions connected with the Univ., notably the Theol. Colls., St. Bart's, Univ. Coll., Guy's, Lond., Sick Children's, Roy. Dent., Nat. Dent., Roy. Lond. Ophth., Paralysed and Epileptic Hospitals, School of Pharmacy, Roy. Vet. Coll., Colls. of Music, Training Colls., and Jews' Coll.

The Science Library of the Vict. and Albert Museum, which is under the Board of Educn., is accessible to students of the R.C.Sc. The British Library of Pol. Sc. (110,000 vols.) at the Lond. School of Econ. is open to students of the School, public officials, Univ. teachers, and other persons properly recommended. Information respecting the various libraries in London is given in Rye's *Guide* (*v.* "List of Publications," p. 274).

Museums. Among the many Museums which, in addition to those belonging to the Schools and Institns. of the Univ., are accessible to students in London are the British Museum (Antiq. and Nat. Hist.) ; Horniman (Anthrop. and Zool.) ; London ; Parkes (Roy. San. Inst.) ; Practical Geol. ; Roy. Archit. Soc.'s ; Roy. Coll. of Surgeons' ; Science, S. Kensington (Mech., Nav., and Struct. Engin., Phys., Maths., Chem., Physiog., Geol., and Biol.) ; Sir John Soane's (Art and Antiquarian) ; Victoria and Albert, S. Kensington (Archit. and Sculpture, &c.).

University Extension. The work of the *Board to Promote the Extension of Univ. Teaching* falls under the following heads : (*a*) Univ. Extension Lectures and Tutorial Classes for Working-people ; (*b*) Holiday Courses for Foreigners ; (*c*) Inspection and Examn. of

Schools; (*d*) Examns. for the Certif. in Religious Knowledge; (*e*) Examns. for the Certifs. in French and in German.

(*a*) *Univ. Extension Lectures* have been carried on by the Board since 1902, and, prior to that, since 1876, by the London Society for the Extension of Univ. Teaching. By agreement with the Univs. of Oxford and Cambridge the work is restricted to the Metropolitan area. Courses are held, at about 50 centres, on Hist., Lit., Art., Econ. and Social Sc., and Nat. Sc. A class is held in connexion with each lecture, and students are encouraged to do regular paper-work for the lectr. An examn. for certifs. may be held at the end of each Sessional (24 or 25 lectures) or Terminal (10 or 12 lectures) Course. A few short courses (5 lectures) of a *pioneer* or illustrative character are arranged; in connexion with these there is no examn. Continuous study over several years is encouraged by the Vice-Chancellor's Certif. of Continuous Study (awarded to students who obtain 4 Sessional Certifs. in subjects chosen from certain groups) and by the *Scheme for Diplomas in the Humanities*, established in 1908, in accordance with which Diplomas are awarded, under the Seal of the Univ., to students who carry on an approved co-ordinated course of study covering 4 yrs., and pass an examn. on the work of each Session, and a final advanced examn. on the whole course. The Diploma Scheme provides for the needs of non-academic students who, as a rule, are engaged in regular occupations, but who wish to make a thorough study of one subject in a way that will enable them afterwards to carry on independent work. Diplomas are awarded in the following subjects: Hist., Lit., Econ. and Social Science, Hist. of Art.

The Tutorial Classes for Working-people are under the immediate direction of a Joint Committee, first constituted in 1909 to co-operate with the Univ. Extension Board for this purpose. The Committee consists of 7 members nominated by the Board and 7 representing various labour organizations nominated by the Workers' Educational Association. The classes extend over 3 consecutive years, and membership is limited to not more than 32 students, who undertake to attend regularly and to do regular paper-work for the Tutor. Certifs. are not awarded. There were 5 classes in the year 1909–10; 26 in 1912–13.

Both the Extension Lectures and the Tutorial Classes are carried on with the aid of donations from various corporate bodies and private individuals.

(*b*) A *Holiday Course* for Foreigners has been held annually in London since the year 1904; in addition, a Holiday Course for English and Foreign Teachers of Mod. Langs. was held at Ramsgate in 1912 and 1913. Students may present themselves for examn. at the end of the course. Special stress is laid upon Phonetic teaching. The London course is held during 4 weeks from the middle of July, and is designed to widen the student's knowledge not only of the Engl. Lang., but of English customs, institns., and art, by means of lectures, classes, a choral society, excursions, &c. The total number of students admitted to the course is limited to 256, and the number in each class to 8. During the 10 years 1904–13 the course has been attended by 2333 students

from 26 countries. The Ramsgate course is held during 3 weeks in Aug. There are courses of lectures on Engl. and French Lit. and on Methods of Mod. Lang. Teaching, and single lectures on various subjects. 181 students attended in 1913.

(*c*) *Inspection and Examination of Schools.* One of the most important and valuable features of the Examn. scheme is the close relation into which it brings examn. and inspection, more especially in the case of schools under regular inspection by the Univ. This relationship has been carefully developed by the Board from year to year, and is of the greatest assistance in promoting close co-operation between the Examining Body and the Schools and thus adding to the educational value of the examns. The County Councils of Surrey and Middlesex have placed their Secondary Schools to the number of 40 under the Univ. for regular inspection and for the holding of the School examns the local authority in each case making a special financial arrangement with the Univ. It has been found possible to make an arrangement by which the Board of Educn. and the Univ. inspect alternately and exchange Reports.

Inspection may include either a general inspection of the whole school or a special inspection of certain subjects or groups of subjects. It may be so combined with the Certificate examns. that these form an integral part of it. It may also include an examn. carried on by the Inspectors and the Staff of the school in co-operation. This system of combined inspection and examn. is known as Examinational Inspection, and is capable of considerable variation to meet the requirements of any particular school.

The *Examinations for Certificates* are held only in Schools inspected by the Univ. or under other approved inspection ; the course of study in the school must also be approved. The examns. are of 3 grades : I, Higher, II, Senior, and III, Junior, for I, the Higher School Certif., II, the (*a*) Senior School, (*b*) Matricn., or (*c*) School Commercial Certif., and III, the Junior School Certif., respectively. Certifs I, II (*a*), and II(*c*) are not awarded until the pupil leaves school. For Examns. I and II schools are required to submit for approval their own syllabus in each subject, and the papers are set upon the approved syllabuses. For the Senr. School examn. schools may be examined, in the case of subjects included in the Matricn. regns., either upon the syllabus prescribed by the Univ. for the Matricn. examn. or upon their own special syllabus, provided such syllabus is approved as at least equivalent to that for which it is substituted.

The *Higher School Examination* is intended for pupils who after passing the Senior School examn. remain at school until the age of 18 or 19 and desire to specialize in certain subjects.

The *Senior School Examination* is intended for pupils about the age of 16–17 yrs. The combination of subjects that may be taken at it offers greater variety than is the case in the Matricn. examn., but the standard in each subject is the same as that required for Matricn., and a pupil who passes at one and the same examn. in a combination required for Matricn. is registered as a Matriculated Student of the Univ. For Certif. II(*c*) the combination of subjects required differs

from that required for II(*a*). The standard in each subject is the same as that for the Senior School examn., but the subjects are treated from the commercial standpoint. The Comml. Certif. Scheme also permits endorsement upon either II (*a*) or III of one or more Comml. subjects. The Senate have established a Panel of Advisers, consisting of a number of the leading authorities on Comml. subjects, to advise them in matters of policy and principle in connexion with the Scheme.

The *Junior School Examination* is intended for pupils about the age of 15. The examn. is set entirely upon the Schools' own approved syllabuses.

In the case of each of the School examns. an Inspector visits the school for the purpose of conducting an oral examn. in such Mod. Langs. as are taken. Practical examns. in Science are optional, except in the case of Genl. Elem. Science at the Senior stage, in which subject they form an essential part of the examn.

Exemptions. The School examns. of the Univ. are accepted under certain conditions as exempting from the examns. of other bodies.

(*d*) The *Examination for the Certificate in Religious Knowledge*, instituted in 1909, is held once a year, in June. It may be held at any of the Provincial centres at which the June Matricn. examn. is appointed to be held, as well as in London.

(*e*) *Examinations for the Certificate in French and the Certificate in German* were held for the first time in Aug. 1913. They are intended primarily for teachers who are not specialists in, but who require a Certif. testifying to their practical working knowledge of, the language, both spoken and written.

[*Further information and copies of the Regns. may be obtained from the University Extension Registrar, University of London, South Kensington, S.W.*]

Publications. The following are obtainable from the Publishers to the Univ. of Lond. Press—Hodder and Stoughton, Warwick Sq., London, E.C. :

The Calendar, pubd. in Sept., price 6s. net, postage 5d. (for 1910–11 it is out of print). *Regns. and Courses for Internal Students* (the "Red Book"), pubd. in Sept., 2s. 6d., postage 5d. The Courses are pubd. separately for the several Faculties, 3d. each net. A special Pamphlet is also pubd. giving particulars of Evening Courses. *Regns. for External Students* (the "Blue Book") pubd. in Sept., 1s. 6d. net, postage 4d. *London Univ. Gazette*, under the editorship of the Principal ; 10 nos. are pubd. in the course of the year at average intervals of 4 weeks ; the Examn. Lists are pubd. in Supplts. ; annual subs., including postage, 5s. ; single no., 6d. *Matriculation Pamphlet*, issued after each Examn., containing the Regns. and Examn. Papers, 6d. post free. *Examn. Papers*, published as soon as possible after the several Examns. ; prices vary from 3d. to 1s. *Libraries of London* : a Guide to Students, by R. A. Rye, Goldsmiths' Librarian ; 6d., postage 3d. ; 2nd edition, 2s. 6d., postage 4d. *Historical Record of the Univ.*, pubd. in Sept. 1912 ; contains (*a*) a Hist. of the Univ. ; (*b*) the Univ.

Charters, and Acts of Parliament referring to the Univ.; (*c*) former Fellows; (*d*) Donations and Trusts; (*e*) Grads.; (*f*) persons to whom prizes, &c., have been awarded, and other information of historical interest; 5s. net. *The Almanac*, pubd. in Sept.; a broadsheet, together with a Calr. of principal events of current year and other particulars; 2s. 6d.

Regulations. The following may be obtained post free on application to the Univ.: Regns. for Matricn.; Regns. for Int. and for Ext. Students (pubd. separately) for Degrees in Arts, Science, Agric., &c., and for Teacher's Diploma; Scholarships pamphlet; O.T.C. Handbook. Applications for any of these should be addressed to the Principal.

THE YEAR 1912–13

Benefactions Received. Grants from the L.C.C. for 9 professorial chairs, Libraries, Advanced Lectures, the Physiol. Lab., Classes in Hist. and Engl. at *U and K, Home Science at KW, and Tutorial Classes, and (£2000) for general purposes; increased Board of Educn. grants to UK, KW, BW, E, and EL; offer by anonymous donor to complete the buildings for Archit., Sculpture, and Eugenics at U, for which he gave last year £30,000 provided that the Univ. contributes £3000; an endowment (£1400 p.a.) by Mr. Ratan Tata, of Bombay, in the first instance for 3 yrs., of a scheme "to promote the study and further the knowledge of the principles and methods of preventing and relieving destitution and poverty"; a "Sir A. Wollaston Franks" Studentship of £50 p.a. for 5 yrs., founded by the Soc. of Antiquaries for research in the Archæol. of the British Isles in its comparative aspects; a bequest of £800 for prizes to be awarded in connexion with K; renewal for 5 yrs. of Prof. Trouton's gift of £100 p.a. for Phys. Research Studentships at U; the Library of Engl. Lang. and Lit. of the late Prof. Skeat, presented for the benefit of K; the Library of the late Lady Welby, over 3000 books, mostly philosophical; Gilchrist Medal for annual award in connexion with the recently established Diploma in History of Art (Humanities Diploma Scheme); a further sum of £1000 granted by Goldsmiths' Company for binding books in Goldsmiths' Library. *Vide also* notes *under* Univ. Coll.

Special Event. Publication of Report of the Royal Commission on Univ. Education in London recommending a reconstitution of the Univ.

New Departments, &c. The L.C.C. grants have enabled the Colleges to institute 3 new Univ. chairs in addition to the 9 referred to above, and the Univ. to carry out an enlarged scheme of *Advanced Lectures*. In addition to Englishmen, several eminent foreigners consented to come over and lecture: among them, Abbé Breuil and Profs. Loofs, Nernst, Foucher, Walther, and Bresslau. Accommoda-

* U, K, &c., *v.* list on p. 242.

tion for the work to be done under the *Ratan Tata* benefaction above mentioned has been found at the School of Economics, and Profs. Hobhouse and Urwick have been appointed Hon. Director and Hon. Secy., and R. H. Tawney Director, of the Dept. A separate Board of Studies in *Sociology* has been established. The *Appointments Board* has been given a full-time Secy.

University Extension, &c. Including Tutorial classes, 120 courses were given, viz. 71 Sessional, 24 Terminal, 25 short courses. An experimental *Holiday Course* at Ramsgate designed chiefly for Engl. and French teachers was instituted. The number of *Tutorial Classes* has been increased to 26; questions are arising now as to the maintenance of Univ. work for students who have passed through the 3 yrs. course and the institution of new classes. A highly successful *summer school* was held at the Univ. and at Univ. Coll. and King's Coll. during 4 consecutive week-ends. *School examns.* were held at 100 schools, the majority being in London and the Home Counties. In 1912–13 the educational work of 36 schools was reported upon under the Regns. for Inspection and Examinational Inspection, in addition to the reports which are made annually upon the work of the schools of the Middlesex and Surrey County Councils as tested by the written and oral examns. held at Midsummer.

Number of Students who appeared for examn.: 12,455—namely, Matricn. and Registration, 6961; Prelim. and Interm., 3381; First Degrees, 1798; Higher Degrees, 191; Diplomas, 124. Of the 1989 candidates for degrees 983 were Internal. The total number of Internal students at the end of the year was 4664.

Number of Degrees conferred (in 1912), 1286, including 374 women, as follows (the number of Internal and External students being given in this order): B.A., 206, 243; M.A., 29, 25; D.Lit., 3, 4; B.Sc., 167, 181; D.Sc., 9, 4; B.Sc.(Agric.), 4, 2; B.Sc.(Vet. Sc.), 3, 0; B.Sc.(Eng.), 84, 51; B.Sc.(Min. and Met.), 3, 0; B.Sc.(Econ.), 23, 17; D.Sc.(Econ.), 1, 0; B.D., 8, 25; LL.B., 16, 33; LL.D., 0, 2; B.Mus., 0, 1; M.B., B.S., 70, 27; M.D., 26, 13; B.S., 1, 0; M.S., 3, 1.

Changes of Policy or Alterations of Regulations. (1) The titles of Univ. Prof. and Univ. Reader, formerly conferred only on "Appointed Teachers," were conferred each on 23 Recognized Teachers at schools and other institns. with the consent of the governing bodies. (2) The general future policy of educational development at *Univ. Coll.* and *King's Coll.* has been laid down on the recommendation of a Special Committee, and the Dept. of Archit., which, in accordance with this scheme, is to be concentrated at Univ. Coll., is being provided with a new building (*see under* "Benefactions"). A general scheme for the administration of the new Univ. School of Archit. has also been adopted. (3) *King's Coll. for Women* has now been placed under a separate delegacy so that it has no longer any direct administrative connexion with King's Coll., although several of the King's Coll. teachers

continue to assist in the educational work of the Coll. for Women. (4) The *East London Coll.* has been reconstituted under a scheme promoted by the Board of Educn. whereby its educational work is completely separated from the activities of the People's Palace, and the Coll. itself is placed under a new governing body upon which the Univ. has 3 representatives. This is the last step effecting the complete transformation of this institn. into a Univ. Coll. (5) The scheme of *co-ordination of advanced work* in the Univ., the Imp. Coll., and other Schools of the Univ. is progressing favourably; arrangements are now made for conferences between the teachers in subjects other than Engineering in order to prevent undue overlapping and competition. (6) A Univ. *Diploma in Fine Art* has been instituted. (7) *Military Science* has been included as a subject for the Interm. and, with effect from 1915, Final examns. in Arts and Science.

Additions to Buildings, &c. The building for the Dept. of Architecture (*v.* "Benefactions") has been completed; the new Chem. Labs. at Univ. Coll. are in course of erection and the Coll. has been authorized to issue a general statement of the future development of its buildings and the funds required for their completion; towards the erection and endowment of the Dept. of Domestic Science of King's Coll. for Women £100,000 has been contributed and an excellent site has been found; the new buildings of Bedford Coll. were opened by H.M. the Queen.

Additions to Amenities. The Univ. Contingent of the O.T.C. established a Band. Arrangements have been made for establishing a Univ. Club for graduates and officers, and for the publication of a students' magazine, *The Undergraduate*.

Other New Developments. The Naval Medical School at Greenwich was admitted as a School of the Univ. in the Faculty of Medicine; a University representative was appointed to the newly instituted Teachers' Registration Council.

Conferences. The proceedings of the Imperial Univs. Congress were opened by the Chancellor in July 1912.

UNIVERSITY OF LONDON, UNIVERSITY COLLEGE

[Founded 1826, opened Oct. 1, 1828, under the title of "The Univ. of London," and incorporated as "Univ. College, London," by Royal Charter dated Nov. 28, 1836. This Charter was annulled by Act of Parliament passed June 24, 1869, whereby the Coll. was re-incorporated with additional powers and divested of its proprietary character. On Jan. 1, 1907, in accordance with the provisions of the Univ. Coll., London, (Transfer) Act, 1905, the Coll. was incorporated in the Univ. of London.]

CHAIRMAN OF THE COLLEGE COMMITTEE	Rt. Hon. LORD REAY, K.T., G.C.S.I., LL.D.
VICE-CHAIRMAN	Sir EDWARD H. BUSK, M.A., LL.B.
TREASURER	F. V. SCHUSTER, B.A.
PROVOST	T. GREGORY FOSTER, B.A., Ph.D.
SECRETARY	W. W. SETON, M.A.
PUBLICATIONS SECRETARY	R. G. ARMSTRONG, LL.B.
TUTOR TO WOMEN STUDENTS	WINIFRED SMITH, B.Sc.
LIBRARIAN	R. W. CHAMBERS, M.A., D.Lit.

This College, situated in Gower St., W.C., provides instruction in Arts, Science, Law, Engin., and Econ., and is a Univ. centre for Prelim. and Interm. Medical Studies. It also provides in the Faculty of Medical Sciences post-grad. instruction in Path. Chem. and in Hygiene and Pub. Health. The Faculty of Arts includes the Slade School of Fine Art, the Indian School and the School of Mod. Oriental Langs. (organized in co-operation with King's Coll.), and the School of Archit. Facilities for *Research* are provided in all departments.

There are 87 appointed and recognized Univ. Teachers (*v.* list of Univ. Profs., &c.), including 30 Profs.

ADMISSION. The minimum age is 16. In certain exceptional cases in the Slade School students may be admitted at a younger age. The courses are open to men and women alike, except in Engineering and Medical Sciences. There is a College Matricn. examn. for non-matriculated students proposing to take a Diploma course in Engin.

A DIPLOMA in Engineering (after a 3 yrs. course) and *Certificates* in Engin. (after a 2 yrs. course) and in Archit. (after a 3 yrs. course) are conferred by the College.

RESIDENTIAL FACILITIES. Univ. Coll. Hall, Ealing (*Warden*—W. W. Seton, M.A.) provides residence for 40 men students. Coll. Hall, Byng Place (*Principal*—Miss Hollings, M.A.) for women students has accommodation for 37. A register of boarding residences (not under the control of the Coll.) is kept.

LIBRARIES, *v. supra*, p. 270.

LABORATORIES AND MUSEUMS. Anat., Comp. Anat., Bact., Bot., Chem., Egyptol., Engin., Geol., Hygiene and Pub. Health, Mat. Med., Math. Instruments, Mineral., Path. Chem., Pharmacol., Philos. Apparatus, Phys., Physiol., Psych., Zool. Two Astron. Observatories, including the "Drapers' Company Transit House."

PUBLICATIONS. The *Calendar*, price 3s.; Annual Report of the Coll. Committee, with Financial Statements, &c.; *Univ. Coll. Lond. Union Magazine*, issued by the Union Society each term. The Brit. School of Archæol. in Egypt has its headquarters at the Coll. and

issues its periodicals from it. The Dept. of Applied Statistics and Eugenics issues the Drapers' Company Research Memoirs and Eugenics Lab. Memoirs and Lecture series and other publicns. A special prospectus of post-grad. courses and arrangements for research is issued.

THE YEAR 1912–13

Benefactions Received. For new Chem. Labs., £7000; for School of Archit., Sculpture Studios, and N.W. front of the Coll., a re-statement of offer of £30,000 previously made; bequests of Miss Rosa Morison (Lady Supt. of women students 1883–1912), about £11,000, to be devoted to foundation of scholarships for women in German (the "Eleanor Grove") and Engl. (the "Rosa Morison"), and an Entrance Scholarship in Arts, and to the endowment of the Teaching of Italian; bequest by T. D. Murray, a former student, of £200 for a Travelling Scholarship in Egyptology; bequest by W. B. Jones, a former Fellow, of £2500; for Engin. (Heating and Ventilating) courses, L.C.C. grant of £300; for Biometric Lab., grant of £400 a year from Drapers' Company; for Archit., £250 from Carpenters' Company; and numerous smaller contributions. The Parliamentary grant has been raised from £11,000 to £16,000 with effect from April 1, 1911; the Bd. of Educn. grant for Tech. and Professional work amounts to £2773.

Special Event. Opening of Inst. of Pharmacol. by Sir Thomas Barlow, President of the R.C.P., on Dec. 4. 1912. The funds for the building were provided by Mr. Andrew Carnegie.

New Departments and Posts. Univ. Readerships in Geom. and in Graphics; Univ. Lect'ship in Milit. Sc.; Lect'ships in Phys. Anthrop. and Vertebrate Palæontology; Ass'tship in Phonetics (for new courses in spoken Engl.). A course for the newly instituted Univ. Diploma in Fine Art has been provided. The study of Heating and Ventilating Engin., for which a Lect'ship was recently instituted, received a further impetus from the provision of 2 studentships by the Institn. of H. and V. Engineers.

University Extension work in the ordinary sense of the term is not undertaken, but an Evening School of Hist. has been instituted in connexion with the Educn. Dept. of the L.C.C. providing a 3 yrs. course leading to Seminar courses for more advanced students and framed with a view also to preparation for the Diploma awarded by the Extension Board of the Univ. The total number of persons attending Pub. Lectures in 1912–13 was upwards of 3000.

Number of Students (1912–13). Full-time Degree students, 481; Diploma (Undergrad.), 93; Post-grad., 104; Slade School, 108; other full-time students, 54; part-time Degree and Diploma students, 90; other part-time, Post-grad., 307; others, 846; total, 2083, including

87 in Training for Teaching in Elem. Schools. Of 177 newly admitted full-time students in Arts 78, and of 62 in Pure Science 11, were women.

NUMBER OF DEGREES and Diplomas obtained (1912–13). Doctors, 20; M.A., 10; M.S., 1; B.A., 50; LL.B., 12; M.B., B.S., 17; B.Sc., 44; B.Sc. (Engin.), 5; B.Sc. (Econ.), 1. Diplomas in Engin., 16; Pub. Health, 24.

ADDITIONS TO BUILDINGS. The new Chem. building and School of Archit. (*v. supra*, "Benefactions") are in course of erection. The Inst. of Pharmacol. was opened. The site of All Saints Church, Gordon Sq., has been acquired for extension of College and provision of a Great Hall. The total cost of this scheme will be £12,000. Nearly £10,000 was received towards the cost of rebuilding the College Hall for Women.

OTHER NEW DEVELOPMENTS. Arrangements have been concluded for transference of Archit. teaching hitherto carried on at King's to the new Univ. School of Archit. at Univ. Coll.

ADDITIONS TO LIBRARY. About 4110 vols. and pamphlets, including 710 items added to the Mocatta Library and a complete set of the "Scrittori d'Italia." The Lib. of the Bibliographical Soc. has been housed in the Coll. A catalogue of the periodical publicns. in the Lib. has been printed. £355 was allotted for the purchase of missing vols. of periodicals.

UNIVERSITY OF LONDON, KING'S COLLEGE

[Founded by Roya Charter in 1829. Incorporated in the Univ. with effect from Jan. 1, 1910, under King's Coll., Lond., (Transfer) Act, 1908.]

CHAIRMAN AND TREASURER OF THE DELEGACY	VISCOUNT HAMBLEDEN.
VICE-CHAIRMAN	Hon. R. C. PARSONS, M.A.
PRINCIPAL	R. M. BURROWS, M.A., D.Litt.
SECRETARY	WALTER SMITH.
LIBRARIAN	F. W. WALTON, M.A.

King's College, founded "for the purpose of giving instruction in the various branches of Literature and Science and the doctrines and duties of Christianity, as the same are inculcated by the United Church of England and Ireland," originally consisted of a School and a Dept. of Genl. Lit. and Science, to which was immediately added a Med. Dept. In 1838 the Engin. Dept. was founded. In 1839 the first Hospl. was built. In 1847 the Theol. Dept. was added, and in 1856

the Evening Class Dept., for a considerable time among the largest in the Coll. In 1861 an Oriental section was started, and in 1881 the Women's Dept. at S. Kensington was founded. By the King's Coll., Lond., Act, 1903, the obligation for Profs. and Lectrs. and Members of the Council to be members of the Church of England was removed except in relation to the Faculty of Theol. By the Act of 1908 King's Coll. School became a separate Corporation; arrangements are made by which the Strand School and other non-Univ. work are removed from the Coll. buildings, and the Corporation of the Hospl. and the Advanced Med. School are made completely independent; the Council remains the governing body of the Theol. Dept. (which is constituted a School of the Univ.), whilst the remaining Depts. of the Coll. and the Women's Dept. are incorporated in the Univ. of London, King's Coll., and Univ. of London, King's Coll. for Women, and are governed by the Univ. by means of a Delegacy or Committee appointed by the Senate.

Univ. of London, King's College, which adjoins Somerset House in the Strand, provides courses in Arts, Science, Laws, Engin., and Econ., and is one of the Univ. centres for Prelim. and Interm. Med. studies. The classes in Laws are arranged by an Inter-Coll. scheme with Univ. Coll. and the Lond. School of Econ. The Final courses in Arts and Science are open to both men and women students. There is a Teachers' Training Dept. (*Head*—Prof. J. W. Adamson, B.A.) including a Day Coll. (men only) under the Bd. of Educn. and a Dept. for training Secondary Teachers. There are 64 Appointed and Recognized Teachers, including 19 Profs. (*v.* "List of Univ. Profs., &c.").

Admission. The minimum age is 16 years. There is a Coll. entrance examn. for candidates who have not passed a Univ. Matricn. examn.

A Diploma in Engin. is conferred by the Coll. for a complete course of study of usually not less than 3 yrs. Certificates are awarded on the results of the annual examns. The *Assoc'ship* of the Coll. is now conferred only on those who, having taken a Univ. degree, have also attended a prescribed course in Div. It is open to both men and women.

Residential Facilities. A list of boarding-houses is kept, and there is a hostel for Theol. students in Vincent Sq., Westminster.

To encourage Scientific Research a Layton Studentship and a Daniell (Chemistry) Scholarship are awarded.

Libraries, *v. supra*, "Univ. Libraries," p. 271.

Laboratories and Museums. Anat. (containing Hughes Collection), Comp. Anat., Biol., Bot., Chem., Engin., Geol. and Mineral., Mat. Med., Metall., Pharmacol., Phys., Physiol., Psych., Zool. The Bact. and Pub. Health Labs. are at 62 Chandos St., W.C.

Publications. *Calendar*, price 3s. post free.

THE YEAR 1912–13. *Special Event.* At the end of the Session the Dept. of Archit. was transferred to Univ. Coll., and the Strand School, taken over by the L.C.C., was removed to Brixton. *Changes in Staff* of Appointed and Recognized Teachers (other than Univ. Profs. and Univ. Readers). Burrows, R. M., apptd. Principal and Lectr. in Classics and Archæol.; Headlam, A. C., Principal, resigned, but retains his Professorship in the Theol. Dept.; Macphail, A., Lectr. in Anat., resigned; Sikes, A. W., Lectr. in Physiol., resigned; Smith, R. Elsey, Prof. of Archit., transferred to Univ. Coll. *Number of Students*, 2540, including 461 Internal (Univ. of Lond.) students. *Number of Degrees and Diplomas Obtained* (1912–13). B.A., 37; M.A., 1; LL.B., 6; B.Sc., 26 (including 2 women of K.W., who took Final 2 years at King's); B.Sc.Eng., 8. Diplomas: Pedagogy, 2; Teacher's Diploma, 6; Pub. Health, 16; Engin., 9; Assoc'ship, 26. *Additions to Buildings.* The rooms vacated by the removal of the Strand School to Brixton. *Other New Developments.* New Hostel opened in Vincent Sq., Westminster.

UNIVERSITY OF LONDON, KING'S COLLEGE FOR WOMEN

[Founded as Women's Dept. of King's Coll. in 1881, and incorporated in the Univ. Jan. 1, 1910.]

WARDEN	Miss H. D. OAKELEY, M.A.
SECRETARY	Miss E. PLUMER.

This College, situated at 13 Kensington Sq., W., provides courses in Arts and Science for the University of London B.A. and B.Sc. degrees. There is a Dept. of Home Science and Econ., which prepares for a Coll. Certif. (3 yrs. course) and Diploma (post-grad. course), and a Dept. of Div., governed by the King's Coll. Council, which prepares for the B.D. and the Univ. Certif. in Relig. Knowl. The second and third year students in Science attend Lectures and Lab. courses at King's Coll. There is a Hall of Residence for students. There are 18 Appointed and Recognized Teachers [*v. supra*, Econ., Hist., Langs. (Class., Engl., French, German, Ital.), Maths., Philos., Phys., Zool.].

THE YEAR 1912–13. *Changes in Staff* of Appointed and Recognized Teachers (other than Univ. Profs. and Univ. Readers). Dale, J. B., Lectr. in Maths., resigned; Edwards, R. W. K., apptd. *vice* Dale; Shovelton, S. T., Lectr. in Maths., resigned. *New Post.* Lecturer in French. *Number of Students.* Full-time Degree students, 57; Diploma, Post-grad., 2; others, 21; part-time Diploma students, 15; other part-time students, 198. *Number of Degrees Obtained* (1911–12). B.A., 10; B.Sc., 8; Diplomas and Certifs. in Home Science, 7; Theol., 5; Assoc'ship, 8.

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

[Incorporated under Royal Charter of July 8, 1907 ; a School of the Univ. in Science and Engineering.]

VISITOR	HIS MAJESTY THE KING.
RECTOR	Sir ALFRED KEOGH, K.C.B., LL.D.
SECRETARY	A. GOW, M.A., B.Sc.
REGISTRAR	JOHN JONES.

This institution includes as integral parts the following Associated Colleges (situated close to the Central Offices of the Univ.) :

The Royal College of Science.

The Royal School of Mines.

The City and Guilds (Engineering) College (*Dean*—W. E. Dalby, M.A., B.Sc., F.R.S. ; *Secy. to the Delegacy*—A. L. Soper).

The R.C.Sc. and R.S.M. were founded in 1851 as "The Govt. School of Mines and of Science applied to the Arts," the name being changed to "The Metropolitan School of Science applied to Mining and the Arts" in 1853, when the Royal Coll. of Chemistry (founded by private enterprise some years before) was incorporated in it. Between 1859 and 1881 the School became an almost purely technical one, and its title was changed to "The Royal School of Mines." In 1881, under the name of "The Normal School of Science and Royal School of Mines," a Training School for Science Teachers was established, the Technical School for Mining and Metallurgy being, however, retained as a branch of the institution. In 1890 the name was again changed to "The R.C.Sc., with which is incorporated the R.S.M."

The City and Guilds of London Inst., an association of the Corporation and Livery Companies of the City of London for the advancement of Technical Education, was founded in 1878 and was granted a Royal Charter in 1900. It established in 1884 a "Central Technical College" providing systematic courses in Engin. and Tech. Chem. of a more advanced character than was provided by the City and Guilds Coll. at Finsbury. It was in 1899 included as a School of the Univ. in Engin., and on the establishment of the Imp. Coll. in 1907 became the Engineering section of the new Coll. under the name of the City and Guilds (Engin.) Coll. It is administered by a Delegacy consisting of representatives of the Imp. Coll., of the C. and G. Inst., and of the Goldsmiths' Company.

The purposes of the Imp. Coll. as defined in its Charter "are to give the highest specialized instruction and to provide the fullest equipment for the most advanced training and research in various branches of science, especially in its application to Industry . . . having regard to the provision for those purposes which already exists

elsewhere." There are 40 Appointed and Recognized Teachers (*v. supra*, Bot., Chem., Engin., Geol., Maths., Metall., Mining, Phys., Zool.).

Admission. The conditions of admission are as under, but the Imperial Coll. reserves power to admit in special cases candidates whose qualifications do not in every respect coincide with those prescribed, but whose previous training fits them to take full advantage of the course proposed; the prescribed qualifications give no right to admission, but will be considered with others of which the candidate may give evidence. (i) *R.C.Sc.* A candidate for admission must be as a rule not less than 17 yrs. of age. For admission to 1st yr. Assoc. courses 1914–15 and subsequent sessions a special entrance examn. in Maths. and Mechanics, Chem., Phys., Engl., French or German or Spanish, and Mech. or Freehand Drawing must be passed, unless exemption is obtained on the ground of having passed equivalent examns. elsewhere. (The Matricn. examn. of the Univ. of Lond. and certain other Univs. is considered equivalent provided the student has passed in "More Advanced Maths." and "Elem. Mechanics," and in the other subjects prescribed for the entrance examn.) Candidates for admission to a 2nd or 3rd yr. must have reached a standard correspondingly higher. (ii) *R.S.M.* ,as above except that Freehand may not be substituted for Mechanical Drawing. (iii) *City and Guilds.* A candidate desiring to enter for the 1st yr. of the Assoc'ship course must be at least 16 yrs. of age and must pass a special entrance examn. in Maths. and Mechanics, Mech. Drawing, Phys., Chem., Engl., and French or German, unless he has passed the Matricn. examn. of the Univ. of Lond., taking certain specified subjects, including More Advanced Maths. For admission to the 2nd yr. course candidates must take the more advanced papers in the College examination or they must have passed the Interm. B.Sc. Engineering in the Univ. of Lond. in Maths., Pure and Applied, Electricity and Magnetism, Drawing and Design, and Heat with Optics. Candidates for admission to advanced or research work are admitted on satisfying the Coll. authorities as to their previous training.

Courses and Diplomas. R.C.Sc. courses extending over 3 yrs. lead to the A.R.C.S. Diploma in Mechanics, Phys., Chem., Bot., Zool., or Geol. Complete specialized courses covering 4 yrs. lead to the A.R.S.M. Diploma in Mining or Metall.; a course in the Technology of Oil has recently been instituted. A characteristic feature of the R.C.Sc. and R.S.M. courses is that as far as possible the student is engaged in one subject during a complete half-session. The Diploma of the City and Guilds Inst. (A.C.G.I.) is awarded in Civ. and Mech. Engin. and in Elec. Engin., the courses extending over 3 yrs. In future the Civ. and Mech. Dept. will be divided into a Mech. Engin. and Motive Power Dept. and a Civ. Engin. and Surveying Dept. In addition to these Diploma courses the Imp. Coll. offers special facilities for more advanced work in all of the branches mentioned. The advanced student may engage in research work or attend full-time

organized advanced courses, or may attend the Coll. as a part time student for the purpose of taking one of the Special Lecture courses with Lab. work or a specially arranged course. Such advanced courses arranged for 1913–14 include subjects in the Depts. of Maths. and Mechanics, Phys., Chem. Tech., Biol., Geol., Metall., Engin. The Diploma of membership of the Imp. Coll. is awarded for an approved course of advanced work or research at the Coll. in Science or Technology.

Scholarships for Research and Advanced Work include the Marshall (interest on £1000) and Huxley (interest on about £1400) for Biol. research, and Clement Le Neve Foster (interest on £1000) for excellence in Geol., Mineral., or Mining. Three scholarships (including 1 provided by the Women's Aerial League) have recently been awarded annually for research in aeronautics. The Institn. of Mining and Metall. offer annually 2 of £50 each to assist Associates of the R.S.M. to take a practical course in mines or works. Three Beit Scientific Research Fellowships of £150 p.a., tenable at the Imp. Coll. for not more than 2 years, are open to persons of European descent by both parents who have taken or qualified for a degree in any approved British Univ., or obtained a Diploma or Assoc'ship of any approved Coll.

The Science Library of the Victoria and Albert Museum is available for use by the Staff and students, and each Dept. is provided with a special Library.

Each Dept. has Research Laboratories and full facilities for post-graduate work.

Publications. The *Calendar*, price 6d.; Annual Report, 3½d.; Imp. Coll. Booklet. A list of memoirs and papers pubd. by members of the Coll. is included in the Annual Report.

Association and Affiliation. In 1909 the Metall. Dept. of the Univ. of Sheff. was recognized as being in association with the Imp. Coll. for the Advanced Metall. of Iron and Steel. Huddersfield Technical College has been approved temporarily as an institn. of which the 1st yr. course will be accepted in lieu of the 1st yr. of Imp. Coll. courses.

Benefactions Received in 1912–13. £37,000 from the Goldsmiths' Company (being supplementary to the £50,000 given in 1909) for extension of Engin. Dept.

Changes in Staff of Appointed and Recognized Teachers. Baker, H. B., apptd. Lectr. in Chem.; Bone, W. A., apptd. Lectr. in Chem. Tech.; Carlyle, W. A., Lectr. in Metall., resigned; Cox, S. H., Lectr. in Mining, resigned; Eyre, J. V., Lectr. in Chem., resigned; Frecheville, W., apptd. *vice* Cox; Harrison, J., Lectr. on Theory of Machines, &c., resigned; Henrici, O., Lectr. in Maths., resigned; Lea, F. C., Lectr. in Civ. and Mech. Engin., resigned; Lowry, T. M., Lectr. in Chem., resigned; Perry, J., Lectr. in Maths., resigned; Robertson,

P. W., apptd. Lectr. in Chem.; Robson, W. E., Lectr. in Design of Elec. Machinery, resigned; Rosenbaum, M., Lectr. in Elec. Tech., &c., resigned; Sedgwick, A., Prof. of Zool., deceased; Smith, S. P., and Witchell, E. F. D., apptd. Lectrs. in Elec., and Civ. and Mech. Engin. respectively.

New Departments, &c. The establishment of an Asst. Prof'ship of Biochem. marks an important advance in enabling the Dept. of Botany to deal with an aspect of Botany which is rapidly growing in importance. Two new chairs of Chemistry (Organic and Physical) have also been instituted.

Number of Students (1911–12). Full-time Diploma students, A.R.C.S., 142; A.R.S.M., 177; A.C.G.I., 376. Further Diploma (Imp. Coll.), 51. Other full-time students, post-Diploma, 16; other, 17. Part-time Diploma students, 8; other part-time students, 141.

Diplomas Obtained (1911–12). Membership of Imp. Coll., 28; A.R.C.S., 57; A.R.S.M., 35; A.C.G.I., 88.

ROYAL HOLLOWAY COLLEGE FOR WOMEN

Opened in 1886. A School of the Univ. in Arts and Science; situated at Englefield Green, Surrey, 19 miles from London; intended for resident students, though others whose homes are near may be admitted; has residential accommodation for about 200.

Principal—Miss E. C. Higgins, B.A.; *Secretary*—Miss A. Martin Leake; Appointed and Recognized Teachers—17 [*v. supra*, Bot., Chem., Hist., Langs. (Class., Engl., French, German), Maths., Phys., Zool.].

The courses provided enable students to prepare for Univ. of Lond. Bachelorship and higher degrees in Arts and Science. College courses are also provided in connexion with which a Coll. Certif. is granted.

The *Library* has 12,000 vols. The Coll. has Chem., Phys., Bot., and Zool. *Laboratories* and Bot. Gardens. Post-graduate or *Research Studentships* (2 or 3 of £40 each) are offered annually. *Publications*: The *Calendar*, price 1s. 4d. post free; "Illustrated Description of the Coll.," 7½d. post free.

The Year 1912–13. Miss Field, Head of the Dept. of Chem., resigned and has been succeeded by G. Barger, M.A., D.Sc., on whom the title of Univ. Prof. has been conferred. *Number of Full-time Students* preparing for the Bachelorship, 141; Bachelor students preparing for the Master's or Doctor's degree, 5; total Internal (Univ. of Lond.) students, 148.

BEDFORD COLLEGE FOR WOMEN

Founded 1849. A School of the Univ. in Arts and Science; situated in Regent's Park; has residential accommodation for 85 students.

Principal—Miss M. J. Tuke, M.A.; *Secretary of Council*—Miss E. T. McKnight, M.A.; Appointed and Recognized Teachers—26 [*v. supra*, Art, Bot., Chem., Educn., Geol., Hist., Hygiene, Langs. (Class., Engl., French, German), Maths., Philos., Phys., Physiol., Zool.].

Minimum age for admission, 17. Students are prepared for all examns. of the Univ. of Lond. in Arts, Science, and Pedagogy, for the Camb. Teachers' Diploma, the Bedford Coll. Hygiene Diploma, and San. Inspectors' Joint Board (London) examn. There are also Art and Hortic. courses. In Med. the Coll. is recognized by the Univ. for the purposes of Prelim. and, in Chem. and Physiol., Advanced Med. Studies and by the Conjoint Board of the R.C.S. and R.C.P. in respect of courses in Chem., Phys., and Biol.; by Camb. for the Secondary Teachers' course; and by the San. Insp. Board. The Tate *Library* and Wernher Reading Room contain 22,000 vols. Special facilities are offered for *Research* work in the *Laboratories* (Bact., Bot., Chem., Geol., Phys., Physiol., Psych., Zool.). *Publications*. The *Calendar*, price 1s., postage 3d.

THE YEAR 1912–13. New buildings were opened by H.M. the Queen on July 4, 1913. *Benefactions Received*. For equipment (Physiol.), £500; for furnishing Common Rooms, £250; for building Reading Room, £1000 (Wernher bequest); for Endowment Fund, £1000. *Changes in Staff*. Hilton, H., apptd. Univ. Prof. of Maths.; Spurgeon, C. F. E., apptd. Univ. Prof. of Engl. Lit.; Tweedy, M., apptd. Asst. Lectr. in Physiol.; the Title of Univ. Reader was conferred on 4 members of the Staff. *New Departments and Posts*. Lect'ship in Maths. became Univ. Prof'ship, consequent on a grant by the L.C.C. to the Univ.; Dept. of Engl. was divided into Lang. and Lit.; Assistant-Lect'ship in the Training Dept. has been arranged for; special courses in Cytology have been arranged for; the removal of the Coll. to Regent's Park has made possible the development of the Bot. Garden, and a course in Hortic. has been established. *Extension Work*. In co-operation with the L.C.C., courses for Teachers were held in the Lent term in Engl. Lit. and French. *Number of Students* preparing for the B.A. degree, 181; B.Sc., 61; Diploma, 35; occasional students, 46; M.A., D.Sc., and Research, 8. *New Buildings*, consisting of 6 main blocks standing in grounds of 8 acres, were opened. *Additions to Library*. Books to the value of £1500.

EAST LONDON COLLEGE

Established 1892. A School of the Univ. in Arts, Science, and Engineering; situated in Mile End Rd., E.; governed under a scheme, approved by the Board of Education in 1913, by a Council (19 members) including the Master and Clerk of the Drapers' Company, the Principal of the College, and representatives of the L.C.C., the Univ. of London, and of the Academic Board which comprises the Heads of Departments.

Principal—J. L. S. Hatton, M.A.; *Registrar*—T. C. Hodson; Appointed and Recognized Teachers—25 [*v. supra*, Bot., Chem., Engin., Geol., Hist., Langs. (Class., Engl., French, German), Maths., Phys.].

Facilities for research are offered in all, especially the Phys., Chem., and Elec. Eng. Depts., to which special Research Laboratories are attached. *Publications.* The *Calendar*, free. There are 407 internal (Univ. of Lond.) students, chiefly day (including 132 women); about 150 others, chiefly evening.

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Founded 1895. A School of the Univ. in the Faculty of Economics and Political Science (including Commerce and Industry); situated in Clare Market, Kingsway, W.C.

Director—Hon. W. Pember Reeves; *Secretary and Registrar*—Miss C. S. Mactaggart; Appointed and Recognized Teachers—25 (*v. supra*, Accountancy, Commerce, Econ., Ethnol., Geog., Hist., Law, Palæog., Philos., Pol. Theory, Pub. Administration, Sociol., Stats., Transport).

Courses of Lectures, Classes, or Tutorial supervision are provided in all the subjects (with the exception of Insurance) falling within the Faculty of Econ. and Pol. Sc. Courses at the School are also recognized in the Faculties of Arts, Laws, and Science. British and foreign economists and political students, professors at foreign Univs., &c., from time to time give short courses on their special subjects, and distinguished men engaged in public life or administration occasionally lecture to the students. Investigation and research work are done under the immediate personal supervision of the Director or a member of the Staff; the method of utilizing the Brit. Museum, Pub. Record Office, &c., is explained; brief bibliographies are supplied together with information as to the main sources from which they may be extended. The manner in which students collect and use their material is criticized and discussed. 29 Research Studentships of from £100 to £25 p.a. have been awarded; the candidates have been, with few exceptions, graduates or women students of the older Univs. The British *Library* of Pol. Sc. (*v. supra*, "Libraries of the Univ.") is intimately connected with the School and housed in the same building.

THE YEAR 1912–13. *Benefactions Received.* Bequest (Sir Julius Wernher), £500; for building fund, £100; for social research, £100; for essay in connexion with lectures on tea, £5; other gifts, £130. *Fresh Source of Revenue.* Treasury grant for superannuation, £300. *Special Event.* Absorption of the School of Sociology and Social Economics, carried on for 9 years under C. S. Loch, LL.D., D.C.L. *New Departments and Posts.* A Chair of Ethnology, tenable at this School; a Univ. Prof. of French Hist. and French Institns. to lecture at the School; a Lectr. in charge of the Department of Social Science and Administration with two part-time assts.; a Demr. in the Dept. of Geog.; and Assts. in the Depts. of Statistics, and Econ. Hist., Modern and Mediæval (*v. also* "New Depts." on p. 275). *Number of Students.* Full-time, preparing for Bachelorship or Diploma examns., 126; Bachelor students preparing for Master's or Doctor's degree, 41; engaged in Research, 111; total internal students, 332. *Additions to Buildings.* Part of permanent extension begun. *Relations entered into with other Bodies.* Inter-Coll. courses in subjects of Imperial interest drawn up in assocn. with Univ. and King's Colls. *Notable Additions to Library.* The Libraries of the Roy. Econ. Soc. and the School of Sociol.; Ratzel—"Anthropogéographie"; Lavallée—"Les Classes ouvrières en Europe"; Le Play—"Les Ouvriers européens"; Neuhass—"Deutsch Neuguinea"; "Legislation of the Empire," 9 vols.; *L'Anthropologie*, 1901–1913; *Zeitschrift für Ethnologie*, 1891–1913; Brière et Caron—"Répertoire méthodique de l'histoire moderne," 5 vols.; Caron—"Bibliographie de travaux publiés de 1866–1897 sur l'histoire de la France"; Garnier-Pagès—"Histoire de la Révolution de 1848," 8 vols.; Conrad—"Handwörterbuch der Staatswissenschaft," 8 vols.

SOUTH-EASTERN AGRICULTURAL COLLEGE, WYE

Founded 1894. A School of the Univ. in Science (Agriculture); situated near Wye Station, on the S.E.Ry.; residential accommodation for students in the Coll. and at the Farm.

Principal—M. J. R. Dunstan, M.A., F.R.S.E., F.I.C.; *Secretary*—H. W. Kersey; Recognized Teachers—4 [*v. supra*, Agric., Bot. (Mycol.), and Vet. Sc.].

This Coll. provides training for students intending to engage in Agric. or become teachers or scientific advisers. Instruction is given in Hops, Horticulture, Forestry, Dairy-work, Farriery, Iron and Wood-work, Poultry and Bee-keeping. The Coll. is a centre for extra-mural lectures, and conducts field experiments, makes analyses of soils, &c., and holds summer courses for Elem. School Teachers and short courses for farmers' sons. The courses are—4 years for B.Sc. degree, 3 for Diploma, 2 for Certif., 2 for Commercial Fruit-growing, Surveyors' and Estate Managers', and for N.D.A. The *Library* has 3500 vols. The Chem. *Laboratories* are equipped for research. There are a Biol. Lab. with space for 35, and Labs. for Vet., Bact., and

Entom. research. The Farm covers 460 acres. There are Demonstration plantations for Forestry instruction and a Research Station at Malling, near Maidstone, for Fruit investigation. *Publications*. The *Journal*, price 7s. 6d. p.a. (residents in Kent and Surrey, 3s. 6d.); Prospectus, 6d. There are 21 Internal (Univ. of Lond.) students and about 130 others. 59 reside at the Coll. and 12 at the Farms.

WESTFIELD COLLEGE, HAMPSTEAD

Founded in 1882 by Miss Dudin Brown for the higher education of women, including instruction in the Christian Religion. A School of the Univ. in Arts; situated near the S.W. corner of Hampstead Heath (Kidderpore Avenue, Finchley Rd.); has residential accommodation for 60 students.

Principal—Miss de Sélincourt; *Secretary*—Miss S. M. Smee; Appointed and Recognized Teachers—10 (*v. supra*, Bot., Hist., Langs., Maths.).

Students are not admitted under the age of 18, and are required to pass an entrance examn. Approved courses in the Faculty of Science in Bot., Maths., and Psych. are provided, as well as courses in Arts; Honours courses in Classics, Hist., Engl., French, Maths., Bot.

THE YEAR 1912–13. *Changes in Staff*. Miss C. L. Maynard (Mor. Sc. Tripos, Girton Coll., Camb.), Mistress of the Coll. since its foundation in 1882, resigned and was succeeded by Miss A. de Sélincourt (Mod. Langs. Trip., Girton, and Student of Som. Coll. Ox.) Sept. 1913. *Number of Students*. Full-time, preparing for Bachelorship, 58; occasional, 3; Bachelor students preparing for Master's or Doctor's degree, 1.

LONDON DAY TRAINING COLLEGE

Founded 1902; a School of the Univ. in the Faculty of Arts (Pedagogy); situated in Southampton Row, W.C.; under the management of a Council of which the Chancellor of the Univ., Chairman of the L.C.C., and Chairman of the London Educn. Committee are *ex-officio* members.

Principal—John Adams, M.A., B.Sc., LL.D. (Prof.); *Secretary*—Miss M. A. Green; Appointed and Recognized Teachers—4 (*v. supra*, "Education").

The work is purely professional, *i.e.* bears directly on the preparation of students for the teaching profession. Students are trained under the Regns.* of the Board of Educn. for the Training of Teachers for (1) Elem., (2) Secondary Schools; students preparing for the Univ. Higher Diploma in Ped. and other advanced students are also admitted. The courses include, in addition to those in the theory and practice of Educn., Nature Study, Clay-Modelling, Drawing, Music, Voice-

* To be had in pamphlet form (6d.) from Wyman and Sons, Ltd., Fetter Lane, E.C.

Production, Phys. Training, Handicraft Instruction, and Needlework. The instruction is so arranged that it will be possible for a student who has already graduated to devote himself continuously for a year to the Theory, History, and Practice of Educn. and obtain the Lond. Univ. Teachers' Diploma. Undergrads. can take a 4 yrs. course so as to satisfy all the requirements of the Board of Educn. and those of the Univ. for the degree of B.A., B.Sc., or B.Sc. (Economics); these attend at other Colls. of the Univ. for their degree courses. The well-equipped schools under the L.C.C. and some London Secondary Schools are used for practical instruction. There are also 2 Demonstration Schools attached to the Coll. There are 45 Internal students (in Pedagogy), including 18 women; other students doing preliminary work with a view to taking a post-grad. training course in their last year, 269 (156 women).

THEOLOGICAL SCHOOLS OF THE UNIVERSITY

NEW COLLEGE, HAMPSTEAD

Finchley Rd., N.W. Founded 1696, reconstituted 1850; trains candidates for the Congregational Ministry.

Principal—A. E. Garvie, M.A., D.D.; *Secretary*—Howard Staines, M.A., B.D.; Recognized Teachers, including Principal—5 (*v. supra*, Langs. (Class.) and Theol.).

The Library (30,000 vols.) contains works on Theol. and Philos. and on the history of Nonconformity. There are 35 Internal (Univ. of London) students, and about 10 others.

HACKNEY COLLEGE, HAMPSTEAD

Founded 1803 for the education of Ministers for the Congregational Churches; other students are admitted to the classes for the Theol. examns. of the Univ.; residential accommodation for over 30 is reserved for Ministerial students on the Foundation.

Principal—P. T. Forsyth, M.A., D.D.; *Secretary*—G. Hamson; Recognized Teachers—6 (*v. supra*, Langs. (Class.) and Theol.).

Many of the classes are held at New Coll. in common with New Coll. or with New and Regent's Park Colls. The Library includes the collection (largely foreign) of Alfred Cave, D.D. There are 14 Internal (Univ. of London) students and about 15 others.

REGENT'S PARK COLLEGE

Founded in 1810; trains students for Ministry or Missions in connexion with the Baptist Denomination; students reside at the Coll.

Principal—G. P. Gould, M.A., D.D.; *Secretary*—C. M. Hardy, B.A.; Recognized Teachers—3 [*v. supra*, Langs. (Class.), Philos., and Theol.].

In certain subjects this Coll. combines with Hackney and New Colls., united classes meeting at New Coll. Students taking an Arts degree before their Theol. courses attend classes at Univ. Coll. The Library includes the Angus collection of books relating to the Baptist Denomination. There are 10 Internal (Univ. of Lond.) students and about 17 others.

KING'S COLLEGE: THEOLOGICAL DEPARTMENT

Strand, W.C. Under the government of the King's Coll. Council, and for certain purposes united with Univ. of Lond., King's Coll. under the name of King's Coll.; has a hostel in Vincent Sq., Westminster, S.W., for 52 resident Theol. students.

Dean of King's Coll.—A. Caldecott, D.D., D.Lit.; *Secretary*—Walter Smith; Recognized Teachers—10 [*v. supra*, Langs. (Class. and Hebrew), Philos., and Theol.].

There are both Day and Evening Classes. Complete instruction is given for all Theol. degrees in the Univ. and students are prepared for Holy Orders in the Church of England. The Council also provides classes in Theol. open to all students of King's Coll., and the Univ. of Lond., King's Coll. for Women. There are 47 Internal (Univ. of Lond.) students and 169 others.

WESLEYAN COLLEGE, RICHMOND

Opened 1843; the property of the Wes. Foreign Missionary Soc., held in trust for the Wes. Conference; since 1885 has ceased to be used exclusively for students designated for foreign work. All students are accepted candidates for the Ministry of the Wes. Methodist Church. Residential accommodation exists for 60 students.

Principal—W. T. Davison, M.A., D.D.; *Secretary of Committee*—J. Banham; Recognized Teachers—3 (*v. supra*, Theol.).

The Library is rich in works on Theol., Philos., Hist., and works relating to India and the Far East. There are about 60 students.

ST. JOHN'S HALL, HIGHBURY

Founded and endowed 1863 by A. Peache, D.D., Chancellor of the Western Univ. of Canada, for the training of candidates for the Ministry of the Church of England; residential accommodation for 50 students.

Principal—A. W. Greenup, M.A., D.D., Litt.D.; *Hon. Secretary of Council*—J. E. Watts-Ditchfield, M.A.; Recognized Teachers—4 [*v. supra*, Langs. (Arabic) and Theol.].

Prepares students for the L.Th. of the Univ. of Durh. as well as for the B.D. of the Univ. of Lond. Provides approved courses in the Faculty of Arts in *Arabic*. All students reside in the Coll. unless permitted in exceptional cases to reside in lodgings approved by the Principal. The Library includes the Theol. books of Purcell Fitz-

gerald and the Vigiles Library of works on foreign missions, besides a collection of Dutch works in Div. of the 17th and 18th centuries.

In 1912–13 the Jubilee of the Coll. (50th year from foundation) was celebrated. *Changes in Staff.* Wallis, C. S., M.A., Resident Tutor, apptd. Vice-Principal of St. John's Hall, Durh.; Carpenter, J. N., M.A., apptd. Vice-Principal of Div. Coll., Saskatoon, Canada. *Number of Students* preparing for the B.D., 7; for the D.D., 3; about 50 others; continuing research in America, 1.

MEDICAL SCHOOLS OF THE UNIVERSITY

[*See also* University College and King's College.]

ST. BARTHOLOMEW'S HOSPITAL MEDICAL SCHOOL

W. Smithfield, E.C. Founded 1662; has residential accommodation for 26 students; situated near Holborn Viaduct Station.

Dean—T. W. Shore, M.D., B.Sc.; *Warden*—W. Girling Ball, F.R.C.S.; Appointed and Recognized Teachers—38 (*v. supra*, Anat., Biol., Chem., Dent., Hygiene, Med., Phys., Physiol.).

Approved courses in the Faculty of Science in Anat., Chem., Phys., and Physiol. The Hospital has 744 beds, including those at Convalescent Home, Swanley. A new block, erected at a cost of £120,000, includes 8 special depts., each complete within itself—Ophth., Aural, Laryng., Derm., Orthop., Dent., Gynæc., Elec. The *Library* is the largest of the Hospital Libraries of London. *Museum* contains over 9000 Path. specimens, representing almost every known morbid condition, 2000 casts and drawings and specimens illustrating Genl. and Comp. Anat. and Physiol., Zool., Morph., Bot., and Mat. Med. The *Laboratories* (including one reserved for research in Pharmacol.) have lately been supplemented by the erection of the new Path. Dept. at a cost of £30,000. There are 211 Internal (Univ. of Lond.) students and about 200 others.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL

Albert Embankment, S.E. Reorganized 1842.

Dean—E. Stainer, M.A., M.D., B.Ch.; *Secretary*—G. Q. Roberts, M.A.; Recognized Teachers—35 (*v. supra*, Anat., Biol., Chem., Hygiene, Med., Phys., Physiol.).

Register of lodgings is kept. Hospital has 602 beds, and includes accommodation for diseases of women and children and of the eye, maternity ward (20 beds), isolation block, Dept. for Massage and Swedish Remedial Exercises, tuberculosis dispensary recently equipped, a Dept. for application of Finsen Light and Elec. treatment, a Vaccine Dept. in connexion with L. Jenner Laboratory. The Chem., Phys., Physiol., Path., and Anat. Depts. have large *Laboratories* for class teaching and facilities for research. The Path. Dept. includes *Museum*

with over 3000 specimens. Modern Clin., Bact., Histol., and Chem. Labs. There are a *Research Fellowship* in Pharmacol. granted by the Salters' Company and a research scholarship in connexion with the clin. laboratories of the Hospital. There are 94 Internal (Lond. Univ.) students and about 120 others.

WESTMINSTER HOSPITAL MEDICAL SCHOOL

Caxton St., S.W. Founded 1834.

Dean—D. W. Carmalt Jones, M.A., M.D., B.Ch. Ox.; *Secretary*—E. B. Hulbert, M.D.; Recognized Teachers—23 (*v. supra*, Dent., Hygiene, Med.).

Subjects for 1st and 2nd examns. for Med. degrees are taught at King's Coll., others at the School in Caxton St. The Hospl. has over 200 beds. New Clin. and Vaccine therapy *Laboratories* have lately been opened. Excluding those at King's Coll., there are 11 Internal (Univ. of Lond.) students and 14 preparing for Conjoint Diploma.

GUY'S HOSPITAL MEDICAL SCHOOL

St. Thomas's St., Borough, S.E. Founded in connexion with St. Thomas's Hospl. 1769; as a separate School 1826; has a residential Coll. for 60 students, under a Warden.

Dean—H. C. Cameron, M.A., M.D.; *Clerk to the Dean*—S. H. Croucher; Appointed and Recognized Teachers—35 (*v. supra*, Anat., Biol., Chem., Dent., Hygiene, Med., Phys., Physiol., Zool.).

This School—associated with which is a large Dental School—provides complete courses in all the subjects required for the L.D.S. Eng., including the period of apprenticeship, as well as in the subjects of the Med. curriculum. The Hospl. has 617 beds, a large Out-patient Dept., a fully equipped Dental Dept., and Dental Laboratory. The new Gordon Path. and Anat. *Museum* contains over 5000 specimens. The Wills *Library* has 6500 vols. *Laboratories* for teaching and research are numerous and extensive. Foundations in aid of *Research* include Lect'ship in Exper. Path. (£600 p.a.), Dem'rship and Research Stud'hsip (£300 p.a.), Lect'ship in Pharmacol. (£300 p.a.), Stud'ship in Path. (£150 p.a.), Stud'ship in Mat. Med., and Travelling Scholarship. There are 180 Internal (Univ. of Lond.) students and about 320 others.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL

Hyde Park Corner. Founded about 1752.

Dean—R. S. Trevor, M.B.; Appointed and Recognized Teachers—25 [*v. supra*, Anat., Chem. (Physiol.), Dent., Hygiene, Med.].

Residential accommodation for students attending Midwifery is provided. The Hospital has 440 beds, of which 100 are in the convalescent branch hospital at Wimbledon. There are *Laboratories* of Path., Bact., and Pub. Health and for Research in Path. Chem. and Photo-micrography. Exhibns. of £100 p.a. (2 yrs.) and £40 (3 yrs.), a Scholarship of £50, and prize in Bact. £30 (3 yrs.) are available for

encouragement of *Research*. *St. George's Hospl. Gazette* is issued monthly during term. *Changes in Staff*. Dent, C. T., Lectr. in Surg., deceased; English, T. C., apptd. *vice* Dent; Slater, C., Reader in Bact. in the Univ. and Lectr. in Hygiene, resigned. *Number of Students*, 60, including 1 Internal (Univ. of Lond.) student.

LONDON HOSPITAL MEDICAL COLLEGE

Turner St., Mile End, E. Founded 1758; hostel for 27 students in the Hospl. grounds.

Dean—Prof. W. Wright, M.B., D.Sc., F.R.C.S.; *Secretary*—E. J. Burdon; Appointed and Recognized Teachers—42 (*v. supra*, Anat., Biol., Chem., Hygiene, Med., Phys., Physiol.).

The Hospital has 922 beds (more than any other in England). There are complete museums of Anat., Dent. Anat., Path., and Mat. Med.; Path., Bact., Clin., Chem., and Biol. *Laboratories*; a *Pathological Institute for Advanced Research*; "Thompson-Yates" Research *Library* of Foreign Periodicals dealing with Anat., Physiol., and Path. Over 140 appointments are available for students annually. More than 150 Dressers, Clin. Clerks, &c., are appointed every 3 mos. *Changes in Staff*. Maxwell, R. D. (Midw. and Dis. of Women), and Walton, A. J. (Surg.), were added to the list of recognized teachers. *Number of Full-time Students* preparing for the Final examns. of the Univs. or Diplomas of Roy. Colls., 210; engaged in Research 0; Internal students (Lond. Univ.), 129.

MIDDLESEX HOSPITAL MEDICAL SCHOOL

Cleveland St., W. Founded 1835; residential Coll. in Hospl. grounds.

Dean—H. Campbell Thomson, M.D., F.R.C.P.; *Sub-Dean*—J. Strickland Goodall, M.B. Lond., F.R.C.S., F.R.S. Edin.; *Secretary*—F. C. Melhado; Appointed and Recognized Teachers—28 (*v. supra*, Anat., Chem., Hygiene, Med.).

The Hospital has 440 beds, including 90 for cancer cases. There are special *Cancer Research* Laboratories. In the Electro-Therap. Dept. special attention is given to the treatment of lupus and cancer by X-rays. There are new Physiol., Chem., Path., and Bact. *Laboratories*, including Special Research Labs. in the Path. and Bact. Dept., and benches fitted for advanced Chem. and Pub. Health work.

THE YEAR 1912–13. *Benefactions*. £15,000 for a new Path. Block and Inst. of Hygiene. *Number of Students* preparing for Univ. and Diploma examns., 218, including 60 Internal (Univ. of Lond.) students; for Doctor's or Master's degree, about 18; occasional students, 53; Research scholars, 5; Assts. to the Director of Cancer Research Labs., 3.

CHARING CROSS HOSPITAL MEDICAL SCHOOL

Charing Cross, W.C. Founded 1834.

Dean—W. Hunter, M.D., F.R.C.P.; Recognized Teachers—18 (*v. supra*, Dent. and Med.).

Instruction is provided in all branches of the Med. curriculum (advanced studies). Students attend King's Coll. for instruction in subjects of the 1st and 2nd examns. for Med. degrees. Facilities for research are afforded in the Path. Chem., Morb. Anat., and Histol., Bact., Genl. Path. and Clin. *Laboratories*. The Univ. has recently taken over a series of depts. of the School for the Labs. of Pub. Hea th and Bact. in King's Coll. and has transferred to them their full professional teaching staff. There are about 140 students, including 4 Internal (Univ. of Lond.).

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN

8 Hunter St., Brunswick Sq., W.C. Founded 1874; rebuilt 1897–1900; students' chambers for 16.

Dean—Miss Julia Cock, M.D.; *Secretary and Warden*—Miss L. M. Brooks; Appointed and Recognized Teachers—21 (*v. supra*, Anat., Biol., Chem., Hygiene, Med., Phys., Physiol.).

The work of the School is almost entirely confined to preparation for Med. degrees and Diplomas. Students are also prepared for the B.Sc. Honours degrees in Physiol. and Anat. The full course for Med. degrees can be pursued. Research *Laboratories* are attached to the Depts. of Anat., Physiol., Pharmacol., Chem., and Path. The Hospl. has 165 beds.

THE YEAR 1912–13. *Benefactions*. £2000 bequest for a Sharman-Crawford Scholarship; £627 for endowment of 2 Richardson-Kuhlmann prizes; £105 for an epidiascope. *Changes in Staff*. Cullis, Miss W. C., received Title of Univ. Reader in Physiol.; Gardner, J. A., apptd. Lectr. in Chem.; Manson, Sir Patrick, resigned Lect'ship in Trop. Med.; Parsons, F. G., F.R.C.S., Prof. of Anat., resigned on appointment to St. Thomas's Hospl. School; Roughton, E. W., F.R.C.S., Teacher of Clin. Surg., &c., deceased; Jones, F. Wood, apptd. Lectr. in Anat. *Number of Students*. Full-time, preparing for a first degree or Diploma, 168, including 149 Internal (Univ. of Lond.) students; occasional, 12; preparing for Master's degree, 1; engaged in research, 1. *Additions to Equipment*. Research Labs. in Path. and Pharmacol.

UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL

Gower St., W.C. Formerly part of the Faculty of Med. of Univ. Coll.; constituted a separate corporation under the U.C.L. Transfer Act, 1905. For purposes of government and organization the Prelim. and Interm. Med. Studies are controlled by the Univ., and the Final by the School.

Students' residence for Maternity students opposite the Hospital. Residential Hall (Univ. Coll. Hall), Ealing.

Dean—G. F. Blacker, M.D., F.R.C.P., F.R.C.S.; *Secretary*—L. R. Thomas; Recognized Teachers—24 (*v. supra*, Dent., Med.).

Students receive instruction for the 1st and 2nd examns. for Med. degrees at Univ. Coll. and in Final Med. Studies at the School. *Library* contains 13,500 vols. *Museum* of Path. Anat. (*Curator*—T. W. P. Laurence, M.B., F.R.C.S.). Full descriptive catalogue. *Laboratories* for teaching and research in Chem. Path., Bact., Histol., and Exper. Path. Grants are made to *Research* workers from Charles Graham Med. Research Fund. The new Hospital, opened 1906, has 305 beds. *Publications. Annual Calendar*; Prospectus; Transactions of Research Dept.; *U.C.H. Mag.*, edited and managed by students, self-supporting.

THE YEAR 1912–13. *Benefactions Received.* £3000 bequest (Mrs. Magrath) for Scholarship in Clin. Med. *Special Event.* Reception of Internat. Med. Congress. *Changes in Staff.* Lewis, T., apptd. Lectr. in Med. (Cardiography). *New Departments, &c.* Electro-cardiography; Tuberculosis Dispensary for cases under Nat. Health Insurance Act. *Number of Students.* Full-time, preparing for 1st Degree and Conjoint Diploma, 120; occasional, 82; preparing for M.D. and M.S., 40; research workers other than teachers, 16. Above figures include 72 Internal (Univ. of Lond.) students. *Additions to Equipment, &c.* X-ray installation for Graham Research workers (*v. also* "New Depts."); Univ. Coll. Hall has been recognized as a Residential Hall.

KING'S COLLEGE HOSPITAL MEDICAL SCHOOL

Denmark Hill, S.E. Formerly part of the Faculty of Med., King's Coll.; constituted a School of the Univ. in the Faculty of Med. (advanced studies), Sept. 1, 1909, under the corporation of King's Coll. Hospl. by the K.C.L. Transfer Act, 1908.

Dean—H. W. Lyle, M.D., F.R.C.S.; *Secretary*—C. Kelway; Recognized Teachers—26 (*v. supra*, Dent., Hygiene, and Med.).

The Univ. continues to teach in King's Coll. buildings the Prelim. and Interm. Med. Studies. *Museums and Laboratories* (*v. supra*, "King's Coll."). There are about 50 students, including 8 Internal (Univ. of Lond.).

ST. MARY'S HOSPITAL MEDICAL SCHOOL

Paddington. Founded 1852.

Dean—Sir John Broadbent, Bart., M.D., F.R.C.P.; *Secretary*—B. E. Matthews, B.A.; Recognized Teachers—31 (*v. supra*, Anat., Biol., Chem., Dent., Med., Phys., Physiol., Zool.).

Complete courses, Prelim., Interm., and Final, for the Med. and Surg. degrees are provided. Special work is done in the Dept. of *Therapeutic Inoculation*, 31 beds being set apart for this under the

personal supervision of Sir Almroth Wright. The *Library* has 3000 vols. *Laboratories.* Phys., Physiol., Chem., Bact., Path., Pharm., Clin. *Museum.* Path. Anat. *Publications.* A monthly *Gazette.*

THE YEAR 1912–13. *Changes in Staff.* Ridewood, W. G., apptd. Univ. Reader in Zool.; Senter, G., apptd. Univ. Reader in Chem.; Wright, Sir Almroth E., apptd. Univ. Prof. in Exper. Path. A 2nd Asst. Lectr. in Bact. and a 2nd Asst. Pathologist were apptd. *Number of Students.* Full-time, 144; occasional, 62; research, 7. The figures include 69 Internal (Univ. of Lond.) students. *Additions to Equipment.* New Clin. Lab. fully equipped for Clin. investigations and original research in Clin. Path.

LONDON SCHOOL OF TROPICAL MEDICINE

Albert Docks, E. Founded 1899; an integral part of the Seamen's Hospital Soc.; residential accommodation provided for students.

Dean—Sir Francis Lovell, C.M.G.; *Secretary*—P. J. Michelli, C.M.G.; Recognized Teachers—10 (*v. supra*, Hygiene, Med., Protoz., Zool.).

Students must be qualified Med. practitioners, or be in the 5th yr. of their Med. studies. Graduates of every nation are admitted without regard to colour or creed. An examn. is held at the end of each term. The course is so arranged as to equip students for the Camb. Diploma in Trop. Med. and Hyg. and the Diploma in Diseases and Hygiene of the Tropics of the Royal Colls. of Eng. The majority of those whose qualifications are not registrable are debarred from taking these Diplomas. Certificates are granted at the School. The Hospl. contains 50 beds. A large proportion of the patients are sailors suffering from acute forms of Trop. disease. The School has a *Library*, *Museum*, and *Laboratories* with accommodation for 70. Fully equipped Labs. for Entom., Helminthol. Protozool., General Med. Zool., and Trop. San. and Hyg. The funds available for encouraging *Research* include £10,000 (Wandsworth bequest) and £60 p.a. from the Hon. E. J. Stanley Memorial Fund. Many Trop. research expeditions have been equipped and maintained by the School. *Publications*—The *Syllabus.*

THE YEAR 1912–13. *Benefactions Received.* £50,000 towards endowment up to 1913. *Number of Students.* About 180 in a year (60 per session). *Additions to Buildings, &c.* New Labs. to accommodate 50 students; additional residential accommodation for students.

LISTER INSTITUTE OF PREVENTIVE MEDICINE

(late Jenner Inst.), Chelsea Bridge Rd., S.W. Incorporated July 25, 1901; admitted as a School of the Univ. June 7, 1905, "for the purpose of Research in Hygiene and Pathology"; open to students of both sexes; serum dept. laboratories near Elstree, Herts.

Director—C. J. Martin, D.Sc., M.B., F.R.S.; *Assistant Secretary*—

G. C. N. Cooper ; Appointed and Recognized Teachers—7 [*v. supra*, Biochem., Hygiene, Med. (Bact. and Path.), Protozool.].

This School is similar in character and purpose to the Inst. Pasteur in Paris, Hyg. Inst. in Berlin, and others established on the Continent for research into causation and prevention of infective diseases of men and animals. The Dept. of Protozool. is presided over by the Univ. Prof. of that subject. There are fully equipped laboratories in that and in Bact., Biochem., Entom., and Statistical Depts. *Publications.* The Annual Report gives a list of scientific papers pubd. during the year.

THE YEAR 1912–13. Sir Henry Roscoe, who succeeded Lord Lister as Chairman of the Governing Body in 1903, resigned, and his place was taken by Sir John R. Bradford. *Changes in Staff.* Dean, H. R., Asst. Bacteriologist, apptd. Prof. of Path. in Sheff. ; MacLean, H., 1st Asst. in Biochem., apptd. Chem. Pathologist at St. Thomas's Hospl. ; Young, W. J., of the same Dept., apptd. Biochemist to the Australian Inst. of Trop. Med. The term of the deputation of G. F. Petrie for service under the Egyptian Govt. was extended to Dec. 31, 1913. *Number of Students.* 8 Internal (Univ. of Lond.) students. The staff includes 15 persons engaged in research in addition to the Appointed and Recognized Teachers. Researches were also carried out by 34 other persons (including 7 women). *Additions to Equipment.* The Elstree Labs. were completed. *Subjects Investigated* (*v.* List of 80 Scientific Papers annexed to Annual Report). The Staff co-operated with Med. Inspectors of the Loc. Govt. Board in investigating material from suspected typhoid carriers ; 3232 samples of milk were examined for Tubercle bacilli on behalf of the L.C.C.

ROYAL ARMY MEDICAL COLLEGE

Grosvenor Rd., S.W. Opened Aug. 1902 ; admitted as a School of the Univ. in the Faculty of Med. for Officers of the R.A.M.C. July 22, 1908 ; includes residence for 70 students ; is directly under the Army Med. Advisory Board.

Commandant and Director of Studies—Col. B. M. Skinner, M.V.O.

The College specializes in Trop. Med., Path., and Hygiene. Other subjects taught are Bact. and Military Surgery. Physical Training has been made a subject of special study in recent years ; also special teaching in Syphilology is carried out at the Military Hospital (81 beds) in Rochester Row, S.W. There are *Laboratories* for Hygiene and Pathology. The average *number of officers* under instruction is 70. They are (1) probationers and (2) Captains of the R.A.M.C. taking a 9 mos. course previous to examns. for promotion. The latter course is arranged in collaboration with the London Hospls. and Med. Schools as regards special instruction in General Med., Surg., and certain selected subjects. *Publications.* The *Journal* of the R.A.M.C. provides a supplement under the title of *Corps News*, wherein the careers of those who have been through the Coll. are noticed.

ROYAL DENTAL HOSPITAL AND LONDON SCHOOL OF DENTAL SURGERY

32 Leicester Sq., W.C. Founded 1858 ; admitted as a School of the Univ. in the Faculty of Med. in Dentistry only, as from Oct. 1, 1911 ; open to men only.

Dean—W. H. Dolamore, L.R.C.P., M.R.C.S., L.D.S. ; *Secretary*—E. Pink ; Recognized Teachers—4 (*v. supra*, Dentistry).

The School has a *Library*, Teaching *Museum*, and *Laboratories* for Phys. and Histol. ; for Chem. and Metall. ; for Bact. ; and for more technical work, such as Dent. Mech. Also an X-ray Dept. *Number of Students*, about 170.

NAVAL MEDICAL SCHOOL OF THE ROYAL NAVAL COLLEGE

Greenwich. Opened May 1, 1912. Admitted on Feb. 9, 1913, as a School of the Univ. in the Faculty of Medicine for the Officers of the Royal Navy Feb. 9, 1913.

Director of Medical Studies—Fleet-Surgeon A. Gaskell, R.N.

This School has accommodation for study and teaching of Genl. and Naval Hygiene, Clin. Path., Trop. Med., and Micro-Biology. In conjunction with the R.N. Hospl. at Haslar, it serves the same purpose in the Navy as does the R.A.M. College at Millbank in the Army. Three courses are prescribed of 2, 5, and 3 mos. duration respectively for Acting Surgeons, for Surgeons prior to examn. for promotion to Staff Surgeon, and for Senior Med. Officers. The average number of officers undergoing these courses annually is about 80.

INSTITUTIONS HAVING RECOGNIZED TEACHERS *

1. UNIVERSITY OF LONDON, GOLDSMITHS' COLLEGE, New Cross, S.E. (Incorporated in the University.)

[Formerly the property of the Goldsmiths' Company, who in 1904 presented to the Univ. the premises wherein they had since 1891 carried on "The Goldsmiths' Company's Technical and Recreative Institute." Opened as a Univ. Institution in 1905.]

Warden—W. Loring, M.A. ; Recognized Teachers—15 [*v. supra*, Art, Bot., Chem., Engin., Geol., Hist., Langs. (Engl., Latin), Maths., Phys.].

This College is managed, under a scheme approved on Nov. 23, 1904, and amended on March 25, 1908, by a Delegacy appointed annually by the Senate and consisting of 8 members of the Senate and 10 others, including representatives of the L.C.C. (2), the Kent,

* *v.* p. 243.

Surrey, and Middlesex County, and Croydon County Borough Councils (1 each), and Goldsmiths' Company (2), the Principal of the Univ. and the Univ. Prof. of Educn. There are 5 *Departments*: (i) Training, (ii) Science, (iii) Engineering, (iv) Building, and (v) Art; (iii) and (iv) are carried on at the Coll. pending the provision of an Engin. and Building School in the neighbourhood by the L.C.C.

The *Training* Dept. has been established, and is maintained, with the help of subsidies received from the four above-named Councils and is at present the most conspicuous feature of the Coll. It is a Training Coll. (Elem.) recognized by the Board of Educn. The course extends over 2 yrs. Though technically a "Day" Coll., it has accommodation in Hostels for nearly all the women and many of the men students. A list of recognized lodgings is kept. The Warden of the Coll. is the Principal; there are 2 Vice-Principals and about 30 Lectrs. and Instructors.

In the *Science* Dept. regular instruction is confined to the evening; it includes preparation for both Pass and Honours degrees. The complete course for the Pass degree covers 5 yrs. Students are also prepared for the Board of Educn. (S. Kensington) and other examns. There are 7 Lectrs., all being Recognized Teachers of the Univ.

In the *Engineering* Dept. the instruction is given entirely in the evening. Students are prepared for the examns. of the City and Guilds Inst., the Inst. of C.E., &c., and a course covering 5 yrs. in preparation for the Engin. Degree (external) of the Univ. has been arranged by co-operation with the Science Dept. There are also internal examns. for a Coll. Certif. and Coll. Diploma under regns. approved by the Univ. *Head of Dept.*—W. J. Lineham, B.Sc., M.I.C.E., &c.

In the *Building* Dept. also only Evening classes are given. They prepare for the examns. of the Board of Educn., City and Guilds Inst., &c., and for internal examns. under regns. approved by the Univ. *Head of Dept.*—R. E. Marsden, B.Sc., A.R.S.I.

In the *School of Art* Day and Evening classes are held. There is a Headmaster (F. Marriott, A.R.C.A., A.R.E.) with 8 Assts.

Number of Students. Internal, 59; others, about 1050, of whom about 450 are in the Training Dept.

2. BATTERSEA POLYTECHNIC, Battersea Park Rd., S.W. (*a*) S. G. Rawson, D.Sc., F.I.C.; *Secretary*—J. Harwood. (*b*) 18. (*c*) Bot., Chem., Engin. (Civ., Elec., Mech., Surv.), Geol., Maths., Music, Phys. (*d*) 109. (*e*) 2855.

3. BIRKBECK COLLEGE, Breams Buildings, E.C. (*a*) G. Armitage-Smith, D.Lit.; *Secretary*—H. W. Eames. (*b*) 32. (*c*) Biol. and Zool., Bot., Chem., Econ., Geog., Geol. and Mineral., Hist., Langs. (Class., Engl., French, Ger., Ital.), Law (Equity, &c., Common), Philos., Phys., Pub. Administration. (*d*) 359. (*e*) 1117.

(*a*) Name of Principal. (*b*) Number of Recognized teachers. (*c*) Subjects in which recognized. (*d*) Number of Internal students. (*e*) Total number of other students.

4. CITY OF LONDON COLLEGE, White St., Moorfields, E.C. (*a*) S. Humphries, B.A., LL.B.; *Secretary*—D. Savage. (*b*) 4. (*c*) Langs. (French, Ital.), Law (Commercial and Mercantile), Maths. (*d*) Nil. (*e*) 2261 (evening); 137 (day).

5. FINSBURY TECHNICAL COLLEGE, Leonard St., Finsbury, E.C. (*a*) Prof. S. P. Thompson, D.Sc., B.A., LL.D., F.R.S.; *Registrar*—L. G. Lines. (*b*) 2. (*c*) Chem., Engin. (Elec.), Physics (Applied). (*d*) Nil. (*e*) 177 (day).

6. JEWS' COLLEGE, Queen Sq. House, Guilford St., W.C. (*a*) A. Büchler, Ph.D.; *Secretary*—A. M. Hyamson. (*b*) 4. (*c*) Langs. (Hebrew, Semitics). (*d*) 15. (*e*) Nil.

7. NORTHAMPTON POLYTECHNIC INSTITUTE, Clerkenwell, E.C. (*a*) R. M. Walmsley, D.Sc., M.I.E.E., F.R.S.E.; *Secretary*—W. K. Davis. (*b*) 10. (*c*) Engin. (Elec., Mech., Struct.), Maths., Phys. (Optics). (*d*) 14. (*e*) 1863.

8. NORTHERN POLYTECHNIC INSTITUTE, Holloway, N. (*a*) R. S. Clay, D.Sc., B.A.; *Secretary*—W. M. Macbeth. (*b*) 10. (*c*) Bot., Chem., Engin. (Mech.), Geol., Maths., Physics. (*d*) 65. (*e*) 1638 (excluding Secondary School and Gymnasium).

9. ROYAL VETERINARY COLLEGE, Camden Town, N.W. (*a*) Sir John McFadyean, LL.D., M.B., C.M., B.Sc., M.R.C.V.S., F.R.S.E.; *Secretary*—T. C. Wight. (*b*) 6. (*c*) Biol., Chem., Physiol., Vet. Sc. (*d*) 14. (*e*) 150.

10. SIR JOHN CASS TECHNICAL INSTITUTE, Jewry St., Aldgate, E.C. (*a*) C. A. Keane, D.Sc., Ph.D.; *Secretary*—W. H. Davison, M.A. (*b*) 6. (*c*) Chem., Maths. (Pure and Applied), Phys. (*d*) 18. (*e*) 950.

11. SOUTH-WESTERN POLYTECHNIC INSTITUTE, Manresa Rd., Chelsea, S.W. (*a*) S. Skinner, M.A.; *Secretary*—H. B. Harper. (*b*) 16. (*c*) Bot., Chem., Engin. (Elec. and Mech.), Geol., Maths., Phys., Zool. (*d*) 115. (*e*) Excluding Secondary School—Day, 697; Evening, 1737.

12. WEST HAM MUNICIPAL TECHNICAL INSTITUTE, Romford Rd., West Ham, E. (*a*) J. R. Airey, M.A., B.Sc. (*b*) 11. (*c*) Chem., Engin. (Elec., Mech.), Maths., Phys. (*d*) 66. (*e*) Day, 200; Evening, 2000.

13. WOOLWICH POLYTECHNIC, Lower Market St., Woolwich. (*a*) A. F. Hogg, M.A.; *Clerk to Governors*—A. J. Naylor. (*b*) 7.

(*a*) Name of Principal. (*b*) Number of Recognized teachers. (*c*) Subjects in which recognized. (*d*) Number of Internal students. (*e*) Total number of other students.

(*c*) Chem., Engin. (Elec. and Mech.), Maths., Phys. (*d*) 9. (*e*) Excluding Secondary School, 1300.

14. MARIA GREY TRAINING COLLEGE, Salusbury Rd., Brondesbury, N.W. (*a*) Miss K. L. Johnston ; *Secretary*—Miss Hodge. (*b*) 4. (*c*) Educn. (*d*) 23. (*e*) 41.

15. ST. MARY'S COLLEGE, PADDINGTON, 34 Lancaster Gate, W. (*a*) Miss H. L. Powell. (*b*) 3. (*c*) Educn. (*d*) 14. (*e*) 18.

16. DATCHELOR TRAINING COLLEGE, Camberwell Grove, S.E. (*a*) Miss C. E. Rigg ; *Secretary*—Miss E. C. Morse. (*b*) 3. (*c*) Educn. (*d*) 7. (*e*) 24.

17. BOROUGH ROAD COLLEGE, ISLEWORTH. (*a*) F. J. R. Hendy, M.A. ; *Official Correspondent*—W. P. Williams. (*b*) 1. (*c*) Maths. (*d*) Nil. (*e*) Resident, 140.

18. ST. JOHN'S COLLEGE, BATTERSEA, Vicarage Rd., S.W. (*a*) H. Wesley Dennis, M.A. (*b*) 1. (*c*) Educn. (*d*) Nil. (*e*) 150.

19. ST. MARK'S COLLEGE, CHELSEA. (*a*) R. Hudson, M.A. (*b*) 1. (*c*) Educn.

20. ROYAL ACADEMY OF MUSIC, Marylebone Rd., N.W. (*a*) Sir A. C. Mackenzie, Mus.Doc., LL.D., D.C.L., F.R.A.M. ; *Secretary*—F. W. Renaut. (*b*) 5. (*c*) Music. (*d*) Nil. (*e*) 571.

21. ROYAL COLLEGE OF MUSIC, Prince Consort Rd., S. Kensington, S.W. *Director*—Sir Hubert Parry, Bart., C.V.O., D.Mus., M.A., D.C.L., LL.D. ; *Registrar*—F. Pownall, M.A. (*b*) 10. (*c*) Music. (*d*) Nil. (*e*) Over 400.

22. TRINITY COLLEGE OF MUSIC, Mandeville Place, W. *Chairman of the Board*—Sir Frederick Bridge, C.V.O., D.Mus., M.A. ; *Secretary*—S. Fisher. (*b*) 5. (*c*) Educn. (Ped. as applied to Music), Music. (*d*) 6. (*e*) 644.

23. GUILDHALL SCHOOL OF MUSIC, John Carpenter St., E.C. (*a*) Landon Ronald ; *Secretary*—H. S. Wyndham. (*b*) 3. (*c*) Music. (*d*) Nil. (*e*) 2200.

24. BETHLEM ROYAL HOSPITAL, Lambeth Rd., S.E. (*a*) *Medical Supt. and Resident Physician*—W. H. B. Stoddart, M.D., F.R.C.P. (*b*) 2. (*c*) Med. (Med., and Mental Dis.).

25. BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Fulham Rd., S.W. *Dean*—C. Wall.

(*a*) Name of Principal. (*b*) Number of Recognized teachers. (*c*) Subjects in which recognized. (*d*) Number of Internal students. (*e*) Total number of other students.

M.A., M.D., F.R.C.P.; *Sub-Dean*—A. C. Inman, M.B. (*b*) 14. (*c*) Med. (Aural Surg. and Laryng., Med., Path., Surg.).

26. HOSPITAL FOR SICK CHILDREN, Gt. Ormond St., W.C. *Dean*—G. E. Waugh, M.D., B.S., F.R.C.S.; *Secretary*—S. Johnson, B.A. (*b*) 15. (*c*) Med. (Dis. of Child., Surg.). (*d*) Nil. (*e*) 270.

27. NATIONAL DENTAL COLLEGE, 187 Gt. Portland St., W. *Dean*—P. S. Spokes, M.R.C.S., L.D.S.; *Secretary*—M. P. Collings. (*b*) 4. (*c*) Dent., Med. (Bact.). (*d*) Nil. (*e*) 40.

28. NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC. *Dean*—F. E. Batten, M.D., F.R.C.P.; *Secretary*—G. Hamilton. (*b*) 15. (*c*) Med. (Aural Surg., Med., Neurol., Ophth., Surg.). (*d*) Nil. (*e*) 60.

29. ROYAL LONDON OPHTHALMIC HOSPITAL, City Rd., E.C. *Dean*—W. T. H. Spicer, M.A., M.B., F.R.C.S.; *Secretary*—R. J. Bland. (*b*) 11. (*c*) Med. (Ophth.). (*d*) Nil. (*e*) 65.

30. SCHOOL OF PHARMACY OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17 Bloomsbury Sq., W.C. *Dean*—H. G. Greenish, F.I.C., F.L.S. (*b*) 2. (*c*) Chem. and Med. (Pharmaceutics). (*d*) Nil. (*e*) 77.

(*b*) Number of Recognized teachers. (*c*) Subjects in which recognized. (*d*) Number of Internal students. (*e*) Total number of other students.

McGILL UNIVERSITY, MONTREAL

VISITOR	THE GOVERNOR-GENERAL OF CANADA.
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HOUSEHOLD SCIENCE, v. p. 311

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Laird, S., late Asst. Prof. of Educn. in Qu., apptd. *vice* Sinclair and Asst. Prof. of Educn.
Ludlow, T. W., Lectr. in Archit., apptd. Assoc. Prof.
Shepherd, F. J., M.D., LL.D., F.R.C.S.E., Prof. of Anat., resigned.
Sinclair, S. B., M.A., Ph.D., Head of the School for Teachers, Macdonald Coll., resigned.
Smart, V. I., B.A., Prof. of Railway Engin., resigned.
Sullivan, C. T., Lectr. in Maths., apptd. Asst. Prof.
Tait, W. D., Lectr. in Experimental Psychol., apptd. Asst. Prof.
Traquair, R., late Prof. in Edin., apptd. Prof. of Archit.
Thornton, A. W., apptd. Head of the Dental Dept.

GENERAL INFORMATION

Special Features. The provision for instruction and research in Applied Science is exceptionally ample, especially in Engin. in all its branches. The Medical School also is exceptionally strong.

Faculties. (1) Arts ; (2) Law ; (3) Medicine ; (4) Applied Science ; (5) Agriculture. There are Schools of Commerce, of Household Science, and for training teachers, a Graduate School, a Dept. of Music, and a Course in Military Science.

In the Faculty of Applied Science are 10 Depts : Archit., Chem., Metall., Ry. Transportation, and 6 branches of Engin., namely, Chem., Civil (including Surveying), Elec., Mech., Metall., and Mining.

Macdonald College is divided into 3 Schools, a student being enrolled in that in which the major portion of his work is taken : (1) the School of Agric., which aims at a theoretical and practical training in the several branches of Agric. ; (2) the School for Teachers, which offers a comprehensive and thoroughly practical training in the science and art of teaching ; (3) the School of Household Science, which gives young women such training as will make for the improvement and greater enjoyment of home life. The Corporation of the Univ. controls

the courses leading to the B.S.A. and M.Sc. in Agric.; all the short-term courses in Agric. as well as in Domestic Science are directed by the Macdonald Coll. Committee; and those for Diplomas to teach in the Province of Quebec are subject to the immediate supervision of the Teachers' Training Committee, the Chairman of which is the Principal of the Univ.

In the Royal Victoria College instruction for the first 2 yrs. in Arts is given wholly, except in laboratory work, in the Coll. building.

The McGill Univ. College of British Columbia, a branch of the Univ. in B.C., has 2 teaching centres. In the main Coll. at Vancouver the courses are conducted up to the end of the 3rd yr. in the Faculty of Arts and of the 2nd yr. in Applied Sc. In the branch at Victoria students are able to complete the work of the first 2 yrs. in Arts. Detailed information is given in the *Coll. Bulletin*, which may be had on application to the Registrar, M.U.C. of B.C., Vancouver, B.C.

Students of the Affiliated Theological Colleges (*see* list *below*) either enter one or other of these Colls. after graduation or pursue courses of instruction concurrently in Arts at the Univ., in Theol. at the special College.

Admission. 16 is ordinarily the minimum age in Arts, Applied Sc., and Med., and 17 in Law. For candidates in Great Britain not otherwise qualified an examn. is held in London each year in June. Particulars are ascertainable from W. A. Evans, M.A., 12 King's Bench Walk, Temple, London. Every student on entering the Univ. is subjected to a physical examn.

Place of Study. All students are required to attend lectures at the Univ. in Montreal, at Macdonald Coll. (for courses in Agric.), or at one of the affiliated Colleges.

Terms, 1913–14. First term begins Oct. 1, 1913, ends Dec. 20; 2nd begins Jan. 4, 1914, ends May 12.

Degrees, &c. Arts—B.A., M.A., D.Litt., Ph.D., Certif. of Literate in Arts; Law—B.C.L., D.C.L.; Medicine—M.D., C.M.; Dentistry—D.D.S.; Science—B.Sc., M.Sc., D.Sc.; Architecture—B.Arch.; Agriculture—B.S.A.; Music—Mus.Bac., Mus.Doc., Diploma of Lic. of Mus., Grade Examn. Certif. in Mus.; Public Health—Diploma; Commerce—Diploma; Teachers' Diploma.

The Courses for the B.A., B.Sc., B.Arch., B.S.A., or D.D.S. cover 4 annual sessions, for the B.C.L. 3, and for the M.D., C.M. 5. Combined courses in Arts and Med. can be taken in 7 yrs., in Arts and Applied Science in 6, in Arts and Law in 6, reducible in special cases to 5. A certif. of Lit. in Arts is given along with the degree in Med., Applied Science, or Law to candidates who have completed 2 yrs. in Arts before entering the Professional faculty.

Students in affiliated Theol. Colls. pursuing a double course in Arts

and Theol. (6 yrs. at least) are exempted from 1 course in the Arts Faculty. Students of affild. Colls. who complete the work of the first 2 yrs. in Arts and pass the prescribed examns. as undergrads. of McG. may be granted certifs. of Literate in Arts.

The MILITARY SCIENCE course. Candidates for commissions must, in addition to residing for 3 academic yrs. at the Univ. and qualifying for a degree in Arts, Applied Sc., or Law, attend a course of lectures in and qualify at an examn. in military subjects, be an efficient member of the Univ. contingent of the Officers' Training Corps each year, and be attached for 6 weeks to a Regular Unit. The number of candidates in the course in 1912–13 was 25.

For the Diploma of COMMERCE a 2 yrs. course is required. It is open to anyone whose standing and attainments appear to be up to the standard of the Matricn. examn. On completion of the course a student may on certain conditions be admitted to the 3rd yr. in Arts. In addition to the full 2 yrs. course the School of Commerce provides *evening* classes, and grants diplomas for successful attendance at these. Such classes are being held during the session 1913–14 in Pol. Econ., Accountancy, Comml. Law.

A 2 yrs. ENGINEERING course in Mt. All., Acad., or Alb. Univ. qualifies for admission directly to the 3rd yr. in Civil and Mining Engin. courses of McG., and likewise, when supplemented by the prescribed 4 weeks of summer work, to the same standing in Chem., Elec., Mech., and Metall. Engin., and Ry. Transportn. courses.

MEDICAL students of 5 yrs. standing of any institn. approved for this purpose may be admitted to the Final examn. subject to certain conditions, including 1 full session at McG. Recent graduates of approved Univs. may qualify for examns. by advanced lab. courses or engage in special research, and for these purposes may attend hospl. clinics on the same conditions as McG. undergraduates.

Clinical instruction is given in (1) Montreal Genl. Hospl. (250 beds); (2) Roy. Vict. Hospl. (250 beds); (3) Montreal Maternity Hospl.; (4) Alexandra Hospl. for contagious diseases (130 beds); (5) Protestant Hospl. for the Insane. The new Medical Museum erected through the benefaction of Lord Strathcona is said to be the finest in America. The pathol. section has singularly rich collections of disturbances of the heart and vascular system and aneurisms. The Museum is extensively used for illustrating lectures. The new Medical building cost over $600,000.

PUBLIC HEALTH AND SANITARY SCIENCE. The course generally occupies 3 mos.

DENTISTRY students intending to practise in Quebec must pass the Matricn. examn. of the Dental Assocn. or hold a degree in Arts or Med. from a recognized Univ. of Canada or the U.K. Candidates for the D.D.S. must be at least 21 yrs. of age.

AGRICULTURE. Macdonald Coll. provides 1 yr. and 2 yr. courses as well as Degree courses. Candidates must have worked for at least 1 season on a farm. The Live Stock and Grain Farm comprise 387 acres. The stock includes Ayrshire cattle, sheep, swine, and poultry. There are Biol., Bact., Chem., Physics, Agric., Hortic., and Poultry Buildings. Several small labs. are specially fitted up for research work.

In the School of HOUSEHOLD SCIENCE 1 yr. and 2 yr. courses and short autumn, winter, and spring courses are given. They are not recognized for a special degree, nor for any part of the Arts course.

GRADUATE SCHOOL. For the M.A. or M Sc. the requirements include the B.A. or B.Sc. of McGill or equivalent attainment, 1 yr. of resident study at McGill or 2 yrs. of private work, and a thesis. An examn. must also be passed. For the Ph.D. the requirements are similar to those for the M.A., but include 3 yrs. of graduate study. The D.Sc. and D.Litt. are granted on the recommendation of the Board of Grad. Studies.

Ad eundem degrees are not granted merely as titular distinctions, but only after receiving reports from the Faculty or Committee on Grad. Studies, and only to persons qualifying for a higher degree when that higher degree has been earned.

RESIDENTIAL FACILITIES. Women students may reside at the Roy. Vict. Coll.; Strathcona Hall, controlled by the Y.M.C.A., has accommodation for 60 men students. The Registrar's office keeps a list of lodgings occupied by undergrads., but the Univ. attempts no direct control in this connexion.

WOMEN. Arrangements are identical for women and for men as regards curriculum, examn., and degrees. Lectures are generally given separately to men and women in the first 2 yrs. in Arts. At Macdonald Coll. men and women mess together in the Coll. Hall. Women do not enter the Agric. or Med. courses, but the Curator of the Med. Mus., who also demonstrates in Pathol., is a woman.

SCHOLARSHIPS FOR GRADUATES. Dr. T. Sterry Hunt Research Scholarship in Chemistry for grad. students in Arts and Applied Sc.

The Univ. LIBRARIES contain over 140,000 vols. and 24,000 pamphlets. The Redpath Historical Collection comprises 10,000 political and religious tracts dating from A.D. 1600. The Med. Library is a particularly fine one, especially in the Dept. of Ophth., which has lately received an accession of 1000 vols.

LABORATORIES. As already stated, the provision for instruction in Engin. is exceptionally ample. The new Engin. building is designed to accommodate 600 students. Three Chem. labs. can each accommodate 200 students at a time. The Phys. building is 5 storeys in height and 8000 sq. ft. in area. There are Mech., Engin., Cement, Hydraulics, Strength of Materials, Elec., Metall. and Assaying, Mining and Ore-dressing, Petrographical, and Geodetic Labs. The Workshops have a

total area of more than 20,000 sq. ft. For students of Zool. there are labs. with accommodation for over 100 students and 3 small labs. fitted up for research work. The Bot. Labs. can accommodate 33 in Morph. and 10 in Physiol. The Lab. of Physiol. (Genl.) can accommodate 80 students. There is a Psych. Lab. equipped for research work. There is an Astron. Observatory. (*See also* notes on Agric. and Med.)

Univ. Extension, &c. A remarkably successful scheme of travelling libraries is operated from the Univ. Library as a centre. In addition to lectures on Pol. Econ., French Lit., &c., given in the evening, there were last year series on Reinforced Concrete and Law regarding Women in the Province of Quebec.

Special Summer Schools in Phys. Educn., Art, and French are held directed by the Teachers' Training Committee of Macdonald College.

Publications. The *Calendar*, issued in the month of June; the Annual Report, issued in Dec.; the *McGill Daily*, a students' paper. The *University Magazine*, issued by a committee for McGill, Tor., and Dal., is published at Montreal.

AFFILIATED INSTITUTIONS

Mount Allison, Acadia, and Alberta Univs. are affiliated to McGill in respect of Engineering courses: *v. supra.*

THEOLOGICAL COLLEGES

Congregational College of Canada, Montreal. Principal—E. M. Hill, D.D.
Diocesan College of Montreal. Principal—E. I. Rexford, M.A., LL.D.
Presbyterian College, Montreal. Principal—J. Scrimger, M.A., D.D.
Wesleyan College of Montreal. Principal—J. Smyth, LL.D.

THE YEAR 1912–13

Benefactions Received. $55,000 bequest of late Dr. R. J. Wickstead for instruction in phys. culture and the purposes of the Univ. Gymnasium; $2000 endowment for purchasing *Ophth. Journal*; $575 endowment for a reading prize.

Number of Students preparing for degrees or diplomas. Arts—390 (including 159 women); Appl. Sc., 500; Med., 300; Law, 60; Macdonald Coll, 232 women and 98 men (95 for B.S.A., 168 for Teachers' Diploma, 67 for Domestic Sc. degree); Music, 20. Evening students, 50. Occasional, 170. Bachelor students preparing for higher degrees, 112. Students continuing study or research in Europe or America, about 12.

Honorary Degrees were conferred on Rt. Rev. Bishop William Boyd Carpenter of Ripon and James A. Temple, M.D. of Toronto.

Other Degrees. B.A., 59, B.Sc. 81, B.C.L. 16, D.D.S. 4, M.D., C.M. 61, B.S.A. 19, M.A. 12, M.Sc. 8, Ph.D. 1.

McMASTER UNIVERSITY, TORONTO

[Incorporated by Act of the Provincial Legislature in 1887.]

CHANCELLOR AND PRINCIPAL	A. L. McCRIMMON, M.A., LL.D.
CHAIRMAN OF THE BOARD OF GOVERNORS	D. E. THOMSON, K.C., LL.D. Tor.
SECRETARY	E. J. BENGOUGH, B.A. McM.
EDUCATIONAL SECRETARY	S. S. BATES, B.A., D.D.

PROFESSORS, LECTURERS, ETC.

BIOLOGY
SMITH, R. W., B.A., PH.D. Prof.

CHEMISTRY
TINGLE, J. B., B.A., PH.D. Prof.

GEOLOGY and Mineralogy
MCNAIRN, W. H., M.A. Lectr.

HISTORY [Lectr.
WALLACE, W. S., B.A. (Asst. in *Gk.*)

LANGUAGES (v. also *Theol.*)
English
MCLAY, W. S. W., M.A. Prof.
FARMER, E. J., B.A. Reader.
French
FRANZEN-SWEDELIUS, B., B.A., PH.D. Prof.
German
CLARK, M. S., M.A. Prof.
MUELLER, P. W., B.A. Lectr.
Greek (v. also *Hist.*)
CAMPBELL, P. S., M.A. Prof.
Latin
CAMPBELL, G. H., M.A. Prof.

MATHEMATICS
FINDLAY, W., M.A., PH.D. Prof.

MISSIONS
NORTON, W. E., D.D. Special Lectr.
BROWN, J. G., B.A., D.D. ,,

PHILOSOPHY, Psychology, Logic, and Ethics
TEN BROEKE, J., M.A., PH.D. Prof.

PHYSICS
DAWES, H. F., M.A. Prof.

POLITICAL ECONOMY, Education, and Sociology
THE PRINCIPAL Prof.
DONALD, W. J. A., B.A. Lectr. in *P.E.*

PUBLIC READING and Speaking [Lectr.
KIRKPATRICK, F. H., PH.B. Special

THEOLOGY
Church History
GILMOUR, J. L., B.A., D.D. Prof.
Aramaic and Hebrew and O.T. Exeg.
MATTHEWS, I. G., M.A., B.TH. Prof.
Homiletics, Church Polity, &c.
TROTTER, T., B.A., D.D., LL.D. Prof.
New Test. and Patristic Greek
FARMER, J. H., B.A., LL.D. Prof.
System. Theol. and Apologetics
KEIRSTEAD, E. M., M.A., D.D. Prof.

CHANGES IN STAFF

Special Lectrs. on Missions appointed.

GENERAL INFORMATION

This is a Baptist Institution, the Board of Govrs. being elected by the Baptist Convention of Ont. and Que. There is no religious test for entrance, but the Profs. and Lectrs. must be members of some evangelical Church. The Univ. is open to men and women alike.

Departments. There is only one Faculty, but there is a Dean in Arts (Prof. McLay) and a Dean in Theol. (Prof. Farmer). There are 2 academic depts. known as Woodstock and Moulton Colleges.

Session, 1913–14. Sept. 23 to May 6; Christmas vacation, Dec. 20 to Jan. 6.

Degrees, &c. B.A., M.A.; B.Sc.; B.Th., B.D.; B.Sc. (Agr.); Diploma in Theol. The Charter provides that the course of instruction and scope of the examns. for degrees shall be as thorough and comprehensive as those for corresponding degrees from the Univ. of Toronto.

Arts. The courses for the Bachelorship extend over 4 years. Students may be enrolled as candidates for it on passing a Matricn. examn. Only students whose attendance at lectures and class-work has been satisfactory are admitted to the written examns. which are held in Jan. and April-May. Questions for all written examns. are prepared by the teachers who prepared the students for them, and are subject to approval by the Faculty. The courses in the 1st and 2nd and in some subjects of the 3rd year may be taken "extra-murally," *i.e.* without attendance at lectures. Certain of the special courses in Arts are recognized by the Provincial Educn. Dept. as qualifying for specialist standing in the Teaching profession. The M.A. degree may be obtained by successfully completing one of certain specialized courses. Attendance at lectures is not required.

Science. The B.Sc. degree is conferred on students who, having passed the Junior Matricn. in Arts, have also completed a prescribed programme of work selected from the subjects of the Arts course. It was first granted in 1912.

Theology. Practical training for the Ministry is provided by arrangement with Churches and the Home Mission Board (Baptist). The course for the B.Th. degree covers 3 years, but may be combined with a course in Arts so that the B.A. as well as the B.Th. may be reached in 6 years. The qualification for admission is the completion of the first 2 years in Arts. The Senate may permit grads. in Arts with 3 years experience (after graduation) in the pastorate to take 2 terms extra-murally. A Diploma without degree is granted to students who complete a 3 years course known as the English Theological. The B.D. courses constitute one full year's work and are open only to those who already hold the B.A. and B.Th. degrees and have

taken a 3 years course in Hebrew. Attendance at lectures is not required.

AGRICULTURE. The B.Sc. (Agr.) degree is granted to students who, having passed the Junior Matricn. in Arts, complete the prescribed 4 years of study, of which the 3rd and 4th are taken at the Ont. Agr. Coll., Guelph. The degree is accepted by the Provincial Govt. as the academic qualification for a specialist's Certif. Extra-mural work will not be recognized in this course.

RESEARCH AND POST-GRADUATE WORK. Students from this Univ. go to Univs. in the U.S. for post-grad. work. Up to the present only Rhodes scholars have gone to England.

WOMEN are admitted on equal terms with men in all classes.

RESIDENCE. McMaster Hall contains accommodation for 88 students (men). There is an approved list of lodging-houses.

The LIBRARY in Castle Memorial Hall (which also contains an assembly hall) has 18,000 vols. and has space for 50,000 vols. (*Librarian* —E. J. Farmer).

The SCIENCE HALL has 24 lecture-rooms and laboratories.

PUBLICATIONS. *Calendar*, pubd. in June. Separate *Calendars* are pubd. for each of the academic depts.—Woodstock and Moulton Colls.

AFFILIATED COLLEGES. *Brandon College*, controlled by a Board of Directors appointed by the Baptist Union of Western Canada. It has Arts, Theol., Academic, Business and Stenography, Music, and Expression and Physical Culture Departments, but the Univ. has relation only to the Arts work, other depts. being controlled solely by the College. Students receive instruction in some of the B.A. courses, and degrees are conferred by the Univ. at Brandon. There is a residence for 70 men, and another (Clark Hall) for 60 women students. Students are required to attend religious services, but, except in the Theol. Dept., need not be Baptists. A special feature is the instruction given in Swedish, chiefly for the benefit of students who have heard the language spoken in their homes. For Brandon students the Univ. recognizes Swedish as equal to French or German. *President*—H. P. Whidden, B.A., D.D., Prof. of Christian Theol. and Ethics.

Okanagan College, West Summerland, B.C., covers the work of the first 2 years in Arts under the direction of the Univ. It also has Academic, Music, and Commercial Depts. Its residences for men (Ritchie Hall) and for women students (Morton Hall) have accommodation for 50 and 40 respectively. *Principal*—Everett W. Sawyer, B.A., D.C.L.

THE YEAR 1912–13

New Departments. A new course has been started in co-operation with the Ont. Agric. Coll. (*v. supra under* "Agric.").

Number of Students preparing for the Bachelorship, 276 (including 63 women) ; Bachelor students preparing for the M.A. degree, 41 (6 women) ; B.D., 6. Brandon students, 69 (18 women) ; Okanagan, 12 (3 women). 7 graduates are at the Univ. of Illinois, several at Chicago, and 5 at Columbia.

Honorary Degrees conferred during the year. LL.D., 2 ; D.D., 1

Other Degrees. B.A., 46 in Toronto, 11 in Brandon ; B.Sc., 1 ; M.A., 3 in Toronto, 2 in Brandon ; B.Th., 7 ; Engl. Course Diploma, 2.

UNIVERSITY OF MADRAS

[Established and incorporated by Act XXVII of 1857 of the Leg. Council of India. Constitution modified by Act VIII of 1904.]

CHANCELLOR	THE GOVERNOR OF MADRAS.
VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE *	Hon. Justice Sir JOHN WALLIS, Kt., M.A., Bar.-at-Law.
REGISTRAR	FRANCIS DEWSBURY, B.A., LL.B.

PRESIDENTS OF FACULTIES:

Arts	Vacant.
Law	Hon. Justice ABDUR RAHIM, M.A., Bar.-at-Law.
Medicine	Lt.-Col. G. G. GIFFARD, C.S.I., M.R.C.P., M.R.C.S., I.M.S.
Engineering	Hon. Mr. C. A. SMITH, C.I.E., M.I.C.E.

GENERAL INFORMATION

The University, as such, has at present no teaching staff. All students undergo courses of instruction in affiliated Colls. Special Lectureships have been instituted by the Univ. with the object of assisting the Colls. in the higher branches of the B.A. Honours courses. The special lectrs. for 1913–14 are marked with an asterisk or dagger in the lists of staffs of affiliated Colls.

MATRICULATION was formerly effected by passing a Matricn. examn. (min. age 15), but since 1911 a completed Secondary School-leaving Certif. has been accepted instead. This is a record of a pupil's work in the upper classes of a high school for not less than 3 yrs. The number entering for the Matricn. examn. has in consequence dropped from 10,000 to 170.

DEGREES AND DIPLOMAS. Arts—B.A., B.A. (Honours), M.A.; Law—B.L., M.L., LL.D.; Medicine—L.M.S., M.B. and B.S., M.D., M.S.; Sanitary Science—B.S.Sc.; Teaching—L.T.; Engineering—B.E.; Titles in Oriental Learning—(*a*) Veda, Vedanta, Nyaya or Vyakarana Siromani, (*b*) Maulavi-i-Fazil, (*c*) Vidvan, (*d*) Munshi-i-Fazil. All students proceeding to degrees are required to pass the Interm. examn. in Arts after 2 yrs. study in an affiliated Coll., in English, Vernacular Composition (or Translation from a classical or foreign lang. into Engl.), and 1 of 3 optional groups.

For the B.A. (Ordinary) degree a further 2 yrs. course is required,

* The executive governing body of the Univ., *v.* Appendix V.

and for Honours 3 yrs. The subjects for the B.A. (Ordinary) are Engl. and 1 of the following: Maths.; Phys. Sc. (2 groups); Nat. Sc.; Logic, Psych., and Ethics; Hist. and Econ.; 2 langs., 1 being a classical already studied for the Interm. The Honours subjects are the same, with the addition of Engl., Sansk., and Arabic Langs. and Lits. as optional subjects. For the M.A. there will be no examn. after 1914, the degree being reserved for grads. in Honours.

For the B.L. a 2 yrs. course after taking the B.A. is required. The M.L. may be taken 2 yrs. later. For the LL.D. a thesis is required at least 1 yr. after passing the M.L. examn. and after 5 yrs. practice.

For the L.M.S. the course extends over 4 yrs., for the M.B. and B.S. 5 yrs., after passing the Interm. examn. in Arts. The M.D. or M.S. may be taken after passing the M.B. and B.S. and after 3 yrs. continuous practice of the profession, or after 2 yrs. or, in the case of a 1st class M.B. and B.S., after 1 yr.'s hospital practice. For admission to the B.S.Sc. examn. previous graduation in Med. is required, as well as attendance at prescribed special courses in an affiliated Coll. and 3 mos. practical work in an Infec. Diseases hospital or ward.

The L.T. is open to a graduate of this or any other approved Univ.

For the B.E. a 3 yrs. course is necessary and 1 yr.'s practical training on works or in engineering workshops. The Final examn. may be either in Civil or in Mech. Engin.

For the Oriental Learning examns. the courses extend over 4 yrs. in institns. approved by the Syndicate.

Studentships for Graduates. Studentships of Rs.75 p.m. tenable 2 yrs., and not exceeding 8 in number, may be awarded annually to grads. for research in any subject in Arts, Med., or Engin.; a Govt. of India Scholarship of £200, tenable for 3 yrs. in Ox. or Camb., is allotted for a Madras grad. after alternate intervals of 1 and 2 yrs.

Residential Facilities. Students of affiliated Colls. not living with either relatives or guardians are required to live in a hostel or rooms approved by the Coll. authorities.

Women are, equally with men, admissible to lectures and examns. Hitherto they have taken only Arts and Med. subjects.

The Library (housed in Connemara Pub. Library) contains 12,000 vols. The yearly grant for maintenance and purchase of books, &c., is Rs.6550.

Publications. (1) *Calendar*, issued in Jan., Vol. I, price R.1, contains lists of officials, Acts and Regns., statistics, and subjects for examns.; Vol. II, R.1, lists and descriptions of institns., endowments, grads. and undergrads. (2) Matricn. Examn. Textbooks in Engl., issued in Jan., 6 annas. (3) Ditto, in Tamil, Telugu, Malayalam, Kanarese, and Sansk., in Jan., 12 annas.

All these are obtainable from the S.P.C.K. Press, Vepery, Madras.

THE YEAR 1912–13

Benefactions Received. A gold medal endowment of Rs.1700 in memory of the late Sir P. N. Krishnamurti of Mysore ; a recurring grant of Rs.65,000 and a non-recurring grant of Rs.4,00,000 made by the Govt. of India in 1912 to enable the Univ. to make a definite step forward towards the realization of the idea of a teaching Univ. for higher work and to improve the inspection of Colls. ; an additional non-recurring grant of Rs.3,00,000 by the Govt. of India, to be expended in 3 yrs.

New Departments and Posts, &c. Rs.50,000 has been allotted for the institution of a temporary Chair in Ind. Economics ; Rs.12,000 p.a. for courses of lectures of an advanced character by specialists from Europe and in India, to be arranged, if possible, in conjunction with other Ind. Univs. ; a research studentship of Rs.75 p.m. has been founded for work in Pure Maths. ; a Univ. Prof'ship in Ind. Hist. and Archæol. (salary Rs.500, rising to Rs.1000 p.m.) has been sanctioned ; Rs.10,500 p.a. has been allotted for staff and maintenance of the Univ. and Oriental MSS. Libraries ; Rs.36,000 p.a. is to be devoted to the development of the study upon modern lines of the languages of India, especially S. India. Courses of lectures in Phonetics were given by Daniel Jones, M.A., of Univ. Coll., London, in Dec. 1912 in the Presidency Coll.

Number of Students. Full-time, preparing for the B.A. 1012, B.L. 662, L.M.S. 152, M.B. 120, L.T. 137, B.E. 26, B.S.Sc. 2. A Govt. of India Scholarship is held by a Madras grad. in Oxford. In 1913 entries for the Interm. examn. in Arts. were 2427, and 812 passed.

Degrees Conferred. B.A. 793, M.A. 30, B.L. 171, M.L. 1, M.B. and C.M. 7, L.M.S. 27, L.T. 122, B.E. 4.

Important Changes in Regns. The 1st, 2nd, and 3rd M.B. and B.S. and the 1st and 2nd L.M.S. examns. are to be held twice instead of once a year. The 1st L.M.S. examn. is divided into 2 parts to allow candidates to take the examn. in Chem. and Phys. (now to be added to the course) at end of the 1st yr. ; M.B. and C.M. is altered to M.B. and B.S. ; L.S.Sc. is altered to B.S.Sc. ; instead of the present M.D. granted on submission of a thesis there are to be 2 degrees, M.D. and M.S., for each of which there will be an examn.

New Buildings. Rs.2,00,000 has been allotted for a building for the Oriental MSS. and Univ. Libraries with lecture-rooms, &c. (supplemental to a grant of Rs.1,50,000 from the Govt. of Madras).

Affiliation in additional B.A. courses has been granted to Bangalore Central Coll. (Chem.) ; Madras, Pachaiyappa's (Phys.) ; Madura, American (Hist. and Econ.) ; Madras, Christian (Maths. Honours).

ADDITIONS TO LIBRARY. Rs.1,50,000 (to be temporarily funded) has been set aside for the purchase of books and MSS.

AFFILIATED COLLEGES *

There are Colls. recognized in Degree courses at Bangalore, Hyderabad, Kumbakonam, Madras, Madura, Mangalore, Masulipatam, Mysore, Rajahmundry, Trichinopoly, Trivandrum, Vizianagram.

[E—Affiliated in Engl. Lang. and Lit.; H—Hist. and Economics; La—2 languages; Lo—Logic, Psych., and Ethics; M—Maths.; Me—Mental and Moral Science; N—Natural Sc.; P—Phys. Sc.; S—Sanskrit Lang. and Lit.; B.L.—Affiliated in courses for the B.L.; L.T.—in courses for the L.T.]

BANGALORE, *Central Coll.* M, N, P. Number of students, 3rd and 4th yrs., 66. Principal, and Prof. of *Engl.*—J. G. Tait, M.A.

HYDERABAD, *Nizam Coll.* H, La, M. Number of students, 3rd and 4th yrs., 10. Principal, and Prof. of *Hist.*—P. H. Sturge, M.A. Camb.

KUMBAKONAM *Coll.* (Govt.). H, La, Lo, M. Open to all classes, but great majority of students are Brahmans. Number of students, 3rd and 4th yrs., 27. Principal—J. A. Yates, M.A.

MADRAS, *Christian Coll.* H, Lo, M, N, P, and in Honours E, M, H, Me, N, P. Supported by United Free Church of Scotland, Wesleyan Mission. Soc., Church Mission. Soc., and Church of Scotland. Number of students, 3rd and 4th yrs., 364. Principal, and Prof. of *Ment. and Mor. Sc.*—W. Skinner, M.A., D.D. Other Professors: *Biol. and Zool.*—W. R. Sherriffs,† M.A., B.Sc. *Chem.*—W. H. F. Armstrong. *Engl. Lang. and Lit.*—S. J. Crawford,† B.A., B.Litt.; F. W. Henderson, M.A.; K. C. Macartney, M.A.; G. Pittendrigh, M.A. *Hist.*—F. E. Corley,† M.A.; E. M. Macphail, M.A., B.D. *Ment. and Mor. Sc.*—A. G. Hogg, M.A.; W. Meston, M.A., B.D.; A. Templeton, M.A., B.D. *Maths.*—E. B. Ross, M.A. *Phys. Sc.*—A. Moffat,† M.A., B.Sc. 23 other Teachers.

MADRAS, *Pachaiyappa's Coll.* H, Lo, M, P. A purely Indian institn., managed by Hindu Trustees and dedicated solely to educn. of Hindus. Number of students, 3rd and 4th yrs., 94. Principal, and Prof. of *Engl.*—J. C. Rollo, M.A.

MADRAS, *Presidency Coll.* (Govt.). H, Lo, M, N, P, and in Honours E, H, M, Me, N, P, S. Number of students, 3rd and 4th yrs., 332. Principal—J. H. Stone, M.A. Camb. Acting Principal, and Prof. of *Engl.*—J. Mark Hunter,† M.A. Ox. Other Professors: *Bot.*—P. F. Fyson, B.A. Camb. *Chem.*—W. Erlam Smith,† M.A. Ox., Secy. to Coll. Council; J. L. Simonsen,† D.Sc. Manc. *Engl.*—J. H. Mackin-

* *v.* Appendix V. † Special Univ. Lectr. 1913-14.

tosh,* B.A. Ox. *Geol.*—Murray Stuart,* D.Sc. Birm. *Hist.*—H. J. Allen, M.A. Dub., Bar-at-Law ; E. W. Green, B.A. Ox. *Ment. and Mor. Science*—A. Subramania Aiyar, B.A., L.T. Mad. *Phys.*—R. Ll. Jones, M.A. Camb. *Math. Phys.*—P. V. Seshu Aiyar,* B.A., L.T. Mad. *Sansk.*—M. Rangachariar, M.A. Mad. ; S. Kuppuswami Sastri,* M.A., L.T. (acting). *Zool.*—K. Ramunni Menon, M.A. Camb. 26 other Teachers.

MADRAS, *Teachers' Coll.* (Govt.). L.T. Acting Principal—A. I. Mayhew, B.A. Vice-Principal—H. Champion, B.A. ; R. W. Ross, B.A. (acting). Supt. Primary Dept.—Rebekah MacLeod. 9 other Teachers.

MADRAS, *Law Coll.* (under control of Director of Pub. Instr.). B. L. Number of students in the B.L. class, 189. Principal—R. A. Nelson, M.A., LL.M., Bar.-at-Law ; S. Swaminadhan, LL.D. (acting). Junr. Prof.—Paul Appaswami, M.A., LL.B., Bar.-at-Law (acting). Asst. Profs.—T. Rajagopalachariar, M.A., B.L. ; C. H. Kunhiraman, B.A., B.L. (acting). Temporary Special Lectr.—K. Yegnanarayana Adiga, B.A., B.L.

MADRAS, *Medical Coll.* (subject to the authority of the Surg.-Genl. with the Govt. of Mad.). L.M.S., M.B., B.S. Its certifs. are recognized by the Colls. of Surgs. of Eng., Scot., and Irel. Number of students, 265. Principal, and Prof. of *Midwifery*—Lt.-Col. G. G. Giffard, C.S.I., I.M.S. Other Professors : *Anat.*—Major T. H. Symons, M.R.C.S. Eng., L.R.C.P. Lond., I.M.S. *Biol.*—Capt. T. W. Harley, B.A., M.B., B.Ch., B.O., I.M.S. *Chem.*—Major A. Miller, M.B., I.M.S. *Dent. Surg.*—C. F. Badcock, L.D.S. *Mat. Med.*—Major E. W. Browne, M.R.C.S. Eng., L.R.C.P. Lond., I.M.S. *Med.*—Col. R. Robertson, M.B., C.M., I.M.S. *Med. Jurispr.*—Major C. G. Webster, I.M.S. *Ophth.*—Lt.-Col. R. H. Elliott, M.D., B.S. Lond., D.Sc. Edin., F.R.C.S., L.R.C.P., D.P.H. Camb., M.P.S., I.M.S. *Path.*—Major H. Kirkpatrick, M.B., I.M.S. *Physiol.*—Lt.-Col. C. Donovan, B.A., M.D., B.Ch., B.A.O. R.U.I., F.L.S., I.M.S. *Surgery*—Major W. J. Niblock, M.B., B.Ch., B.A.O. R.U.I., F.R.C.S.I., I.M.S.

MADRAS, *Coll. of Engineering.* B.E. Number of students in B.E. course, 70. Principal—W. H. James, B.Sc., M.I.M.E., A.M.I.C.E., Fellow of Mad. Univ. Other Professors : *Civil Engin.*—C. L. T. Griffith, A.M.I.C.E., and 9 Instrs. *Mech. Engin.*—C. L. Cartwright, M.I.M.E., A.M.I.C.E., and 4 Instrs. *Maths.*—K. R. Ramaswami Aiyangar, M.A., L.T., and 5 Instrs.

MADURA, *American Coll.* (Mission). H. Hostel accommodation for Christians and for Brahman and non-Brahman Hindus. Instructive Staff : *Engl.*—W. M. Zumbro, M.A., Principal ; W. W. Wallace, M.A., Assoc.-Princ. *Hist. and Econ.*—P. H. Anantaram Ai, B.A. ; L. C. Guise, M.A.

* Special Univ. Lectr. 1913-14.

MANGALORE, *St. Aloysius' Coll.* H, Lo, M. Managed by Jesuit Fathers. Number of students, 3rd and 4th yrs., 32. Rector—C. Perazzi. Principal, and Lectr. in *Engl. Lit.*—C. Ghezzi, B.A., D.D.

MASULIPATAM, *Noble Coll.* H, La. Supported by Church Miss. Soc. and Rugby Fox Memor. Fund and Govt. grant of Rs.7800 p.a. Number of students, 3rd and 4th yrs., 20. Principal, and Prof. of *Hist.*—W. C. Penn, M.A. Ox., B.A. Lond.

MYSORE, *Maharajah's Coll.* (Govt.). H, La. Number of students, 3rd and 4th yrs., 37. Principal, and Prof. of *Hist.*—T. Denham, M.A. Ox.

RAJAHMUNDRY, *Govt. Coll.* H, La, Lo, M, P. Number of students, 3rd and 4th yrs., 46. Principal, and Prof. of *Engl.*—O. J. Couldrey, M.A. Ox.

TRICHINOPOLY, *St. Joseph's Coll.* (S.J.). H, La, Lo, M, P, and in Honours H, M, P. Open to all creeds and classes, but primarily for Roman Catholic population of S. India. Number of students, 3rd and 4th yrs., 212. Rector and Principal—F. Bertram. Manager—J. D. W. Sewell. Professors: *Bot.*—E. Gombert,* B.A. *Chem.*—A. Haas. *Chem. and Zool.*—F. J. Caius. *Econ.*—P. Carty.* *Engl.*—H. J. Quinn. *Hist.*—L. V. Newton. *Maths.*—C. Pruvôt. *Phys.*—D. Honoré. 24 other Teachers.

TRICHINOPOLY, *S.P.G. Coll.* H, La, M, P. Number of students, 3rd and 4th yrs., 64. Principal and Manager—A. F. Gardiner, M.A. Vice-Principal, *Engl. and Maths.*—W. H. M. Lonsdale, M.A.

TRIVANDRUM, *Maharaja's Coll.* (Govt.). H, La, M, P. Number of students, 3rd and 4th yrs., 150. Principal, and Prof. of *Engl.*—L. C. Hodgson, M.A. Camb.

TRIVANDRUM, *Maharaja's Law Coll.* (Govt.). Number of students in B.L. class, 49. Principal—F. J. R. Hunt, Bar.-at-Law. Senr. Lectrs.—E. J. John, B.A., B.L.; K. Kochukrishna Marar, B.A., B.L. Lectrs.—E. S. W. Senathi Raja, LL.B., Bar.-at-Law; V. A. Ramakrishna Aiyar, B.A., B.L.; K. G. Paramesvara Menon, B.A., B.L.; C. G. Idichandy, B.A., Bar.-at-Law; E. Poonen, B.A., M.D., M.Ch.

TRIVANDRUM, *Training Coll.* (Govt.). L.T. Number of students preparing for the L.T., 25. Principal—G. F. Clark, M.A., Ph.D. Vice-Principal—K. Venkateswara Aiyar, B.A., L.T. Senr. Lectrs.—A. Narayana Aiyar, B.A., L.T.; O. M. Cheriyan, B.A., L.T. Specl. Lectr.—J. Pryde, M.A., B.Sc. (Nature Study).

VIZIANAGRAM, *Maharaja's Coll.* Lo, M, P. Maintained by the Raja of Vizianagram. Number of students, 3rd and 4th yrs., 21. Principal, and Chief Lectr. in *Engl.*—K. Ramanujachariyar, M.A., B.L.

* Special Univ. Lectr. 1913-14.

UNIVERSITY OF MALTA

SUPREME AUTHORITY	H.E. THE GOVERNOR OF MALTA.
VISITOR	H.H. THE LIEUT.-GOVERNOR.
RECTOR	Hon'ble Prof. E. MAGRO, M.D.
ASSISTANT RECTOR	JOHN REYNOLDS.
CLERK OF THE COUNCIL	JOSEPH BRIFFA.

PROFESSORS, LECTURERS, ETC.

*ANATOMY and Histology**
SAMUT, C., M.D. Prof.
DEBONO, P. P., M.D., D.P.H. Asst.

BIOLOGY, v. *Nat. Hist.*

CHEMISTRY
ZAMMIT, T., C.M.G., M.D. Prof.

ENGINEERING and Archit. (v. also *Mech.*)
GALEA, R. V. Lectr.

HISTORY
THE PROF. OF *Engl. Lit.* Lectr.

HYGIENE
DEBONO, F., M.D. Prof.

LANGUAGES and Literature
English Lit.
FALLON, D. Prof.
Italian Lit.
LAURENZA, V., D.LIT. Acting Prof.
Latin Lit.
SCEBERRAS, F. M., D.D. Prof.

LAW
Canon Law
VASSALLO, MOST REV. CAN. E., JUR. CAN. DOC. Lectr.
Civil Law
CARUANA, G., LL.D. Prof.
Commercial Law
REFALO, M. A., B.A., LL.D. Prof.
Const. and Internat. Law
VASSALLO, E. C., M.A., LL.D. Prof.
Criminal Law
RANDON, L. A., B.A., LL.D. Prof.

LOGIC and Philosophy
CUSCHIERI, A., ORD. CARMEL. Prof.

MATHEMATICS
NIXON, W.F., B.SC., A.R.S.SC. Lectr.

MECHANICS, Applied
GATT, J. L., L.S. AND A. Lectr.

MEDICINE and Surgery
Materia Med. and Therap.
CASSAR, I., M.D. Lectr.
Medicine
MIFSUD, C., M.D. Prof.
ANASTASI, G. C., B.SC., M.D. Asst.
Mental Diseases
ULLO XUEREB, G., M.D. Lectr.
Midwifery and Gynæcology
DEBONO, G., M.D. Prof.
ZANGHI, C. A., B.A., M.D. Asst.
Ophthalmology
VASSALLO, A., M.A., M.D. Lectr.
Surgery
CASSAR, S., M.D. Prof.
BORG, S., M.D. Asst.

NATURAL HISTORY
DEBONO, F., M.D. Prof.

PHILOSOPHY, v. *Logic*

* In the Faculty of Medicine.

PHYSICS
AGIUS, T., M.A., M.D. Prof.

*PHYSIOLOGY**
SAMUT, R., M.B., C.M. EDIN. Lectr.

POLITICAL ECONOMY
SULTANA, A., LL.D. Lectr.

THEOLOGY, Dogmatic
FORMOSA, VERY REV. MGR. G., B.A., D.D., J.U.D. Prof.

THEOLOGY, Moral Prof.
GRIMA, MOST REV. MGR. CAN. C., D.D.

CHANGES IN STAFF

Anastasi, G. C., apptd. *vice* Asphar.
Asphar, M., M.D., Asst. to the Prof. of Med., vacated the apptmt. on completion of term of office.
Debono, P. P., apptd. *vice* Samut.
Samut, R., Asst. to the Prof. of Anat., vacated the apptmt. on completion of term of office.

GENERAL INFORMATION

FACULTIES. Four—Literature and Science (including Engineering and Architecture); Theology; Law; Medicine.

MATRICULATION involves passing an examn. in 5 subjects. English *or* Italian, Maths., and (except for the Academical course of Engin. and Archit.) Latin are compulsory subjects. For Med. students proposing to register in England, Hist. and Engl. are also compulsory, and it is necessary to take 6 subjects in all instead of 5.

DEGREES, DIPLOMAS, &c. B.Lit., D.Lit., B.Sc., D.Sc.; B.L.Can., D.D.; LL.D.; M.D.; B.Eng. and A. (Engin. and Archit.). Diplomas of Notary Public, Legal Procurator, Pharmacist and Apothecary, Dental Surgeon, Midwife. Certifs. issued in connexion with the Board of Trade to navigators, engineers, and engine-drivers. General clinical instruction is imparted principally at the Civil Central Hospital, which contains over 200 beds, including Maternity and Gynæc. Wards. Other hospls., such as the Fever and other Contag. Dis. Hospls., Asylums for Insane and Incurables, and Sanatoria are also available for clinics.

SCHOLARSHIPS FOR GRADUATES. The best grad. in each of the Academical courses of Theol., Law, Med., and Engin. and Archit. is awarded £120 to enable him to proceed abroad for study. The Marchese Vincenzo Bugeja purse (£50) is awarded to the best grad. in each of the first 3 courses, subject to certain conditions.

WOMEN. There are no provisions in the Statute for or against the admission of women to classes and degrees, but no woman has been admitted except 1 who attended as an occasional student.

RESIDENTIAL FACILITIES are not provided by or in connexion with the Univ.

* In the Faculty of Medicine.

LIBRARY. 5000 vols. A Public Library maintained in connexion with the Univ. contains over 100,000 vols. and is specially rich in MSS. and rare editions, including many records of the Knights of St. John of Jerusalem and Malta, and collections of specimens of bookbinding and illuminated MSS. of great historical interest.

MUSEUMS include almost all the birds and fishes which visit Malta as well as local insects and sea-shells, &c., and important local fossils. The Archæol. Museum has unique prehistoric remains and a collection of coins and medals mostly in connexion with the rule of the Knights of St. John and of Malta.

An OBSERVATORY contains, besides the usual registering instruments, some of considerable historical value.

The BOTANICAL GARDEN dates from the time of the Knights, being the third to be established in Europe.

THE YEAR 1912–13

This was the first year of (1) the Triennial Academical Courses, 1912–15, (*a*) of Literature, (*b*) of Sciences, and (*c*) of Engineering and Architecture in the Faculty of Literature and Science (including courses preparatory to the Quadrennial Higher Academical Courses, 1912–16, in the Faculties of Theol., Law, and Medicine, to courses of Notarial Studies and Legal Procedure and the Course of Pharmacy); (2) the Quadrennial Higher Academical Courses, 1912–16. It was also the 4th year of the Higher Academical Courses, 1909–13, in Theol., Law, and Medicine for the Senior Students, as well as the 1st year of the Academical Courses, 1912–16, in Theol., Law, and Medicine for the Junior Students. This overlapping occurs periodically every three years, as admissions to the Higher Academical Courses are allowed only at the beginning of each of such courses, viz. every third year.

NEW DEPARTMENTS, &c. Optional classes in Higher Maths., including the Calculus, have been opened under the direction of the Lectr. in Maths.

NUMBER OF STUDENTS preparing for the Bachelorship or diplomas 237, occasional students 7, preparing for the Doctor's degree 40.

DEGREES CONFERRED during the year. B.Sc. 1, B.Lit. 2, D.D. 2, B.L.Can. 2, LL.D. 18, M.D. 20, B. Eng. and A. 6. *Diplomas*—Notary Public 4, Legal Procurator 18, Pharmacist and Apoth. 15. *Certifs.*—25.

ADDITIONS TO BUILDINGS AND EQUIPMENT. A lecture and demonstration room capable of accommodating about 100 students. Considerable additions of apparatus for the labs.

CHANGES IN REGULATIONS. The standard of the Matricn. examn. has been brought within the requirements of the Genl. Council of Med. Educn. and Registration of the U.K.

VICTORIA UNIVERSITY OF MANCHESTER

[Founded by Royal Charter dated April 20, 1880. Owens Coll. incorporated with the Univ. 1904.]

CHANCELLOR	The Rt. Hon. VISCOUNT MORLEY OF BLACKBURN, O.M.
VICE-CHANCELLOR	Prof. F. E. WEISS, D.Sc. (*pro tempore*).
PRO-VICE-CHANCELLOR	Prof. A. S. DELÉPINE, M.B., C.M., M.Sc.
CHAIRMAN OF THE COUNCIL	Sir FRANK F. ADAM, C.I.E., LL.D.
CHAIRMAN OF CONVOCATION	C. T. NEEDHAM, B.A., M.P.
REGISTRAR AND SENIOR TUTOR FOR MEN STUDENTS	E. FIDDES, M.A.
SENIOR TUTOR FOR WOMEN STUDENTS	PHOEBE SHEAVYN, D.Litt.
BURSAR	S. CHAFFERS, M.A.
SECRETARY TO THE SENATE AND THE UNIVERSITY EXTENSION COMMITTEE	H. P. TURNER, M.A., LL.B.
LIBRARIAN	C. W. E. LEIGH.
KEEPER OF THE MANCHESTER MUSEUM	W. M. TATTERSALL, D.Sc.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING [Lectr.
CARTER, R. N., M.COM., F.I.C.A.

ACOUSTICS
PROF. RUTHERFORD (v. *Phys.*) Prof.

AGRICULTURE
YOUNG, T. J., F.S.I. Lectr.
Agric. Entomology [Reader.
IMMS, A. D., M.A., D.SC., F.L.S., F.E.S.
(v. also *Bot.* and *Zool.*)

ANATOMY, Descr. and Pract.
SMITH, G. ELLIOT, M.A. CAMB., M.D., CH.M. SYD., F.R.S. Prof.
STOPFORD, J. B., M.B., CH.B. Senr. Demr.
KILNER, T. P., M.B., CH.B. Demr.
MARSHALL, C. B., M.B., CH.B. ,,
MORITZ, M., B.A. CAMB., M.B., CH.B. Demr.
Clinical Anatomy [Lectr.
HUGHES, E. E., M.B., CH.M., F.R.C.S.
MORLEY, J., M.B., CH.M., F.R.C.S. ,,
(v. also *Med.—Path.* and *Dent.*)

ARCHÆOLOGY
Classical Archæol.
HOPKINSON, J. H., M.A. OX. Lectr.

Egyptology [Reader.
GARDINER, A. H., D.LITT. OX.

ARCHITECTURE [Prof.
DICKIE, A. C., M.A., F.S.A., A.R.I.B.A.
Archit. Drawing and Design
GRANT, J. LINDSAY Demr.
(v. also *Engin.* and *Tech.*)

BANKING
HARTLEY, J. W. Lectr.
FRASER, D. D., M. COM. Hon. Lectr.

BIOCHEMISTRY, v. *Chem.*

BOTANY
WEISS, F. E., M.SC. MANC., D.SC. LOND. Harrison Prof. and Dir. of Bot. Lab.
ADAMSON, R. S., M.A., B.SC. EDIN., B.A. CAMB. Asst. Lectr. and Demr.
Cryptogamic Botany
LANG, W. H., M.B., C.M., D.SC. GLAS., F.R.S. Barker Prof.
Economic Botany
BRIERLEY, W. B., M.SC. MANC. (Demr. in Bot.) Asst. Lectr.
Vegetable Physiology
THODAY, D., M.A. CAMB. (Demr. in Bot.) Lectr.

CHEMISTRY (v. also *Med.—Pharm., Metall., Pub. Health, Phys.—Elec.*)
DIXON, H. B., M.A. OX., M.SC. MANC., PH.D. PRAGUE, F.R.S. Prof. and Dir. of Inorg. Labs.
LAPWORTH, A., D.SC. LOND., F.R.S. Prof. and Dir. of Org. Labs.
SMITH, NORMAN, D.SC. Senr. Lectr.
BURT, F. P., B.SC. LOND., D.SC. BRIS. Senr. Lectr.
EDGAR, E. C., D.SC. Senr. Lectr.
LANKSHEAR, F. R., M.SC. MANC., B.A. N.Z. Asst. Lectr. & Demr.
HOPE, E., M.SC. ,,
MYERS, J. E., M.SC. ,,
JONES, W. J., B.SC. WALES, M.SC. Asst. Lectr. and Demr.
PARTINGTON, J. R., M.SC. ,,
Bacteriological Chem.
FOWLER, G. J., D.SC. Lectr.
Biochemistry
WEIZMANN, C., SC.D. FREI., D.SC. MANC. Reader.
Technological Chem.
KNECHT, M.SC.TECH., PH.D. ZÜR., F.I.C. *Prof.
COWARD, H. F., D.SC. (Dir. of Chem. Labs. in School of Tech.) Lectr.
RADCLIFFE, L. G., M.SC. TECH. †Asst. Lectr.
PEACHEY, S. J., M.SC.TECH. ,,
SINNATT, F. S. ,,
HIBBERT, EVA, A.M.S.T. Demr.

COMMERCE, v. *Accounting, Banking, Econ., Railways*

DENTISTRY
D. Anat. and Physiol.
PRESTON, C. H., M.D. LOND., F.R.C.S., L.D.S. Lectr.
D. Bacteriology [Prof.
PROF. BOYCOTT (v. *Med.—Path.*)
D. Histology
HEADRIDGE, D., L.D.S. Lectr.
D. Materia Med.
PROF. WILD (v. *Med.*) Prof.
SIMMS, H., M.D., L.D.S. Lectr.
D. Metallurgy
HEADRIDGE, J. P., B.SC. LOND., L.D.S., D.D.S. Lectr.
Orthodontia
CAMPION, G. G., L.D.S. Lectr.
Operative Dentistry
NORMAN, H. W., L.D.S. Lectr.
Prosthetics and Mechanics
SIMMS, W., L.D.S. Lectr.
D. Surg. and Path.
DORAN, S. S., L.D.S. Lectr.

* Prof. in the School of Tech.

† Lectr. in the School of Tech.

ECONOMICS (v. also *Banking, Econ. Bot., Econ. Zool., Railways*)

CHAPMAN, S. J., M.A. CAMB., M.COM. MANC. Jevons Prof. and Cobden Lectr.
SHIMMIN, A. N., M.A. Asst. Lectr.
JACK, A. F., B.A. CAMB., M.COM. ,,
DANIELS, G. W., B.A. ,,

Economic History

UNWIN, G., M.A. OX. Prof.

EDUCATION

SMITH, H. BOMPAS, M.A. OX. Prof., and Dir. of the Dept.
FINDLAY, J. J., M.A. OX., PH.D. LEIP. Sarah Fielden Prof.
MARK, T., D.LITT. LOND., B.SC. Lectr.
HERFORD, MISS C. Lect. and Demr.
BROWN, MISS C. M. R., M.A. ST. AND. ,,
EGGAR, MARGARET E., N.F.U. Asst. Lect. and Demr.
STOCKTON, C. E., M.A. ,,
SHELLEY, J., B.A. CAMB. ,,
QUINE, E., B.SC. LIV. ,,
BURSTALL, SARA A., B.A. LOND., M.A. DUB. Spl. Lectr.
PATON, J. L., M.A. CAMB. ,,

Observation of Children and School Hygiene

MELLAND, C. H., M.D. LOND. Lectr.

School Teaching

STEEL, KATE L., N.F.U. Demr.
HARRISON, A. S., M.SC. ,,
VICKERS, W., M.SC. ,,
SUDDARDS, IDA ,,

For Elem. Training Dept.

Singing

KEIGHLEY, T., MUS.D. Lectr.

Reading and Recitation

POWELL, C. Adviser.

Drawing and Needlework

START, LAURA Instr.

Drawing

SHELLEY, J., B.A. Instr.

* Prof. in School of Tech.

Phys. Exercises for Men [Demr.

QUINE, E., B.SC. LIV. Asst. Lectr. &

Phys. Exercises for Women

ATKINSON, MRS. KING (Ling Assoc.) Instr.

ENGINEERING

PETAVEL, J. E., D.SC., F.R.S., A.M.I.C.E., A.M.I.E.E. Beyer Prof. and Dir. of Whitworth Lab.
SANDEMAN, E., M.I.C.E. Assoc.Prof.
DEWHURST, C. B., M.SC., A.I.C.E. Clifton Lectr. and Dir. of Drawing Offices.
FRITH, J., M.SC., A.M.I.E.E. Demr.
COOK, G., M.SC., A.M.I.C.E. Junr. Demr.

Civil Engin. and Drawing

LANDER, C. H., M.SC., A.M.I.C.E., A.M.I.M.E. Lectr. in C.E. and Senr. Instr. in Drawing.
DELÉPINE, H. G. S., B.SC. Junr. Instr. in Drawing, and Demr.

Electrical Engin. [*Prof.

WALKER, M., M.A. CAMB., M.I.E.E.
LUSTGARTEN, J., M.SC., A.M.I.E.E. †Asst. Lectr. and Demr.
MOORE, A. E., A.M.I.E.E. ,,

Hydraulics

PICKFORD, F., M.SC., A.M.I.M.E. †Asst. Lectr. and Demr.

Mechanical Engin.

VACANT Prof.
JORDAN, H. G., A.R.C.S.I., M.I.M.E., M.SC.TECH. *Lectr.
POPPLEWELL, W. C., M.SC., A.M.I.C.E. †Lectr.
ANDERSON, R. M., M.SC.TECH. †Asst. Lectr. and Demr.
EDMONDSON, A. R., M.SC. ,,
FERGUSON, R. M., M.SC. ,,
JONES, T., M.I.M.E. ,,
SMITH, DEMPSTER, A.M.I.M.E. ,,
THRELFALL, H., M.SC.TECH., A.R.C.S.I. ,,

(v. also *Archit., San. Engin., Tech.*)

† Lectr. in School of Tech.

GEOGRAPHY

MC FARLANE, J., M.A. EDIN., B.A. CAMB., M.COM. Lectr.

GEOLOGY, Palæont. and Petrology

HOLLAND, SIR T. H., K.C.I.E., D.SC. CALC., F.R.S. Prof. and Dir. of the Geol. Lab.

DAWKINS, W. BOYD, M.A., D.SC. OX. AND MANC., F.R.S. Hon. Prof.

HICKLING, G., D.SC. Lectr. in Pal. and Demr. in Geol.

JOWETT, A., M.SC. MANC., B.SC. LEEDS Junr. Asst. Lectr. and Demr.

Vertebrate Palæontology

WATSON, D. M. S., M.SC. Hon. Lectr.

HISTORY (v. also *Economics, Music, Palæog., Theol.*)

WAUGH, W. T., M.A., B.D. Senr. Asst. Lectr.

CRAMMER, W., B.A. OX. Asst. Lectr.

HIGHAM, C. S. S., B.A. ,,

Ancient and Mediæval Hist.

TAIT, J., M.A. OX. AND MANC. Prof.

Colonial History [Spl. Lectr.

HERTZ, G. B., M.A., B.C.L. OX.

Irish History

DUNLOP, R., M.A. Spl. Lectr.

Mediæval and Eccles. Hist.

TOUT, T. F., M.A. OX. AND MANC., F.B.A. Prof.

Modern History

MUIR, R., M.A. LIV. AND OX. Prof.

Roman History

FIDDES, E., M.A. MANC., CAMB., AND ABERD. Spl. Lectr.

HYGIENE (v. also *Pub. Health, San. Engin., Vet. Hyg.*)

SIDEBOTHAM, E. J., M.A., M.B. CAMB. Lectr.

Factory Hygiene Lectr.

LEGGE, T. M., M.A., M.D. OX., D.P.H.

School Hygiene (*Pub. Health Dept.*: v. also *Education*)

YOUNG, M., M.D. EDIN., D.P.H. Lectr.

LANGUAGES and Literature

Chinese

PARKER, E. H., M.A. Prof.

English Lit. and Lang.

HERFORD, C. H., LITT.D. CAMB. AND MANC. Smith Prof.

CHARLTON, H. B., B.A. LEEDS Asst. Lectr.

CLASSEN, E., M.A., PH.D. Asst. Lectr.

SHEAVYN, PHOEBE, D.LIT. LOND. Spl. Lectr.

English Lang.

SEDGEFIELD, W. J., M.A. CAMB., D.LITT. MELB. Prof.

French Lang. and Lit.

KASTNER, L. E., M.A. CAMB. Prof.

LAILAVOIX, L., M.A. LOND., L.-ÈS-L. PARIS Lectr.

GRIFFITHS, E. T., B.A. WALES Asst. Lectr.

ORR, J., M.A., B.LITT. OX., L.-ÈS-L. PARIS Asst. Lectr.

German Lang. and Lit.

JOHANNSON, A., M.A. DORPAT AND MANC. Henry Simon Prof.

MC GRATH, E. H., M.A. OX. Asst. Lectr.

German for Technology

ALBERS, G. Teacher.

Greek [Hulme Prof.

CALDER, W. M., M.A. ABERD. AND OX.

Hellen. Gk. and Ind.-Eur. Philol.

MOULTON, J. H., M.A. CAMB., D.LIT. LOND., D.D. EDIN., D.C.L. DURH., D. THEOL. BERL. Greenwood Prof.

Greek and Latin [Asst. Lectr.

BRAUNHOLTZ, G. E. K., M.A. CAMB.

KYD, A. H., B.A. OX. ,,

WILLIAMSON, H., M.A. OX. ,,

Hebrew, v. *Semitic*

Iranian Langs. and Lits. [Lectr.

CASARTELLI, RT. REV. L. C., M.A. LOND., D.LITT. OR., D.D. LOUV.

Italian Literature

VALGIMIGLI, A. Even. Class Lectr.

Latin, Early and Classical

CONWAY, R. S., LITT.D. CAMB. Hulme Prof.

Latin, Imperial

ANDERSON, W. B., M.A. ABERD. AND CAMB. Prof.

Portuguese

PRESTAGE, E., B.A. OX. Spl. Lectr.

Russian

SEDGEFIELD, W. J., M.A. CAMB., D.LITT. MELB. Lectr.

Semitic Langs. and Lits.

CANNEY, M. A., M.A. OX. Prof.

LAW (v. also *Railways*)

HOPKINSON, SIR ALFRED, K.C., LL.D. GLAS., ABERD., BRIST., AND LEEDS, M.A., B.C.L. OX. Christie Prof.

SEATON, J. S., M.A., B.C.L. OX., BAR.-AT-LAW Prof.

BOTTOMLEY, L., M.A., LL.B., LL.D. LOND., SOL. OF SUPR. CT. Tutor.

Common Law

BURGIS, E. C., M.A., B.C.L. OX., LL.B., BAR.-AT-LAW Lectr.

Conveyancing

EASTWOOD, T. C., B.A., LL.B. LOND., B.A., BAR.-AT-LAW Lectr.

Criminal Law

ACTON, E., B.A. OX., BAR.-AT-LAW [Lectr.

Jurispr. and Const. Law

HERTZ, G. B., M.A., B.C.L. OX., BAR.-AT-LAW Lectr.

Probate, &c.

OPPENHEIM, F. S., M.A. OX., SOL. OF SUPR. CT. Lectr.

Roman Law

DEHN, T. G. R., B.A. OX., BAR.-AT-LAW Lectr.

MATHEMATICS (v. also *Phys.*)

LAMB, H., SC.D. CAMB. AND DUB., LL.D. GLAS., D.SC. OX., F.R.S. Beyer Prof.

HASSÉ, H. R., M.A. CAMB., M.SC. Fielden Lectr.

EVANS, W. D., M.A. CAMB. Richardson Lectr.

SEARLE, J. H. C., B.SC. LOND. Senr. Asst. Lectr.

CLEMMOW, C. A., B.A. CAMB., B.SC. LOND. Asst. Lectr.

Maths. for Technology

WRAPSON, J. P., B.A. R.U.I., A.R.C.S.I., M.SC.TECH. *Lectr.

BROTHERTON, H., M.SC.TECH. †Asst. Lectr.

PRESCOTT, J., M.A. ,,

BARRATT, W. S., A.R.C.S.I., A.I.C. ,,

MEDICINE and Surgery

Anæsthetics

WILSON, A., F.R.C.S. Hon. Lectr.

Dermatology

LANCASHIRE, G. H., M.D., M.R.C.S., L.R.C.P. Lectr.

Diseases of Children

LAPAGE, C. P., M.D., M.R.C.P. Lectr.

Diseases of the Ear

MILLIGAN, W., M.D. ABERD. Lectr.

Diseases, Infectious

FLETCHER, J., M.D. ABERD., D.P.H. [Clin. Lectr.

Diseases of the Larynx

MORITZ, S., M.SC. MANC., M.D.WÜRZ., M.R.C.P. Clin. Lectr.

Diseases, Mental

MOULD, G. W., M.R.C.S. Lectr.

SCOWCROFT, W., M.R.C.S. Lectr.

Forensic Medicine

SELLERS, W., M.D. LOND., M.R.C.S., D.P.H. Prof.

Gynæc., v. *Obst.*

Mat. Med. and Therap. (v. also *Pharm.*)

WILD, R. B., M.D. LOND., M.SC. MANC., F.R.C.P. Leech Prof.

Medicine, Clinical

REYNOLDS, E. S., B.SC., M.D. LOND., F.R.C.P. Prof.

BROCKBANK, E. M., M.D., F.R.C.P. Lectr.

CUNLIFFE, E. N., M.D., M.R.C.P. ,,

RAMSBOTTOM, A., M.D., D.P.H., M.R.C.P. Lectr.

WILLIAMSON, R. T., M.D., F.R.C.P. ,,

* Prof. in School of Tech.

† Lectr. in School of Tech.

Medicine, Systematic

MURRAY, G. R., M.A., M.D. CAMB., M.D. DUB., D.C.L. DURH., F.R.C.P. Prof.

MOORE, F. CRAVEN, M.D., M.SC., F.R.C.P. Lectr.

Obstetrics and Gynæcology [Prof.

DONALD, A., M.D. EDIN., M.R.C.P.

LEA, A. W. W., M.D., B.S. LOND., F.R.C.S. Lectr.

FOTHERGILL, W. E., M.A., B.SC., M.D. EDIN. Lectr.

SHAW, W. F., M.D. Asst. Lectr.

Obst. and Gynæc, Clinical

ROBERTS, D. L., M.D. ST. AND., F.R.C.P. LOND., F.R.S.E. Lectr.

WALLS, W. K., M.B. LOND., M.R.C.S., L.R.C.P. Lectr.

Ophthalmology

GRIFFITH, A. H., M.D. ABERD. Lectr.

Ophth., Clinical

CLEGG, J. G., M.D. LOND., M.B., CH.B., F.R.C.S. Lectr.

Pathology and Path. Anat.

BOYCOTT, A. E., B.SC., M.A., D.M., B.CH. OX. Procter Prof.

DOUGLAS, J. S. C., M.A., D.M. OX., M.R.C.S., F.R.C.P. Lectr. (Path.).

WHITE, C. POWELL, M.A., M.D. CAMB., F.R.C.S. Spl. Lectr. (Path.).

LOVEDAY, G. E., M.A., M.B., B.C. CAMB., M.R.C.S., L.R.C.P. Lectr. (Clin. Path.).

ANDERTON, W. B., M.B. LOND., M.R.C.S., L.R.C.P. Demr. (Morb. Anat.).

Path. of the Skin

DYSON, W., M.D. Hon. Spl. Lectr. (v. also *Pub. Health*)

Pharmacology and Therap.

LEECH, E. B., M.D. CAMB., M.R.C.S. Asst. Lectr.

Pharmacy and Pharmacognosy

GRIER, J., M.SC. MANC. Lectr.

Surgery, Clinical

THORBURN, W., B.SC., M.D., B.S. LOND., F.R.C.S. Prof.

Surgery, Operative

WRIGLEY, P. R., F.R.C.S. Asst.

WRIGHT, G., M.B., CH.B. EDIN., F.R.C.S. Asst.

Surgery, Orthopædic

ROBERTS, C., M.B., B.S. LOND., F.R.C.S. Lectr.

Surgery, Practical [Lectr.

BURGESS, A. H., M.B., M.SC., F.R.C.S.

Surgery, Systematic

SMITH, J. W., M.B., C.M. EDIN., F.R.C.S. Prof.

TELFORD, E. D., M.A., B.C. CAMB., F.R.C.S., L.R.C.P. Lectr.

Surgical Pathology [Lectr.

RAY, J. H., M.B., CH.M., F.R.C.S.

Therapeutics, v. *Mat. Med.*

Tropical Diseases

STEPHENS, J. W. W., M.D., B.C. CAMB., D.P.H. Lectr.

Vaccination

SCOTT, J., M.A., M.D. ABERD. Lectr.

METALLURGY

CARPENTER, H. C. H., M.A. OX., PH.D. LEIP. Prof.

ANDREW, J. H., M.SC. Junr. Demr. and Research Fellow.

RHEAD, E. L., M.SC.TECH., F.I.C. *Lectr.

METEOROLOGY [Observer.

WHITE, MISS M., M.SC. Meteor.

MILITARY Organization, &c.

NUGENT, CAPT. F. H. Lectr.

MINING [Lectr.

WILLIAMS, N. T., B.SC. WALES.

MUSIC

RODSKY, A., MUS.D. Lectr.

Harmony and Mus. Composn.

CARROLL, W., MUS.D. Lectr.

Church Music, &c.

PYNE, J. K., MUS.D. (CANTUAR.), F.S.A., F.R.C.O. Lectr.

History of Music

KEIGHLEY, T., MUS.D. Lectr.

* Lectr. in School of Tech.

PALÆOGRAPHY
LITTLE, A. G., M.A. OX. Lectr.

PALÆONTOLOGY, v. *Geol.*

PHILOLOGY, v. *Langs.*

PHILOSOPHY (v. also *Relig.*)
ALEXANDER, S., M.A. OX. AND MANC., LL.D. ST. AND., F.B.A. Prof.
FIELD, G. C., M.A., B.SC. OX. Asst. Lectr. (Lectr. on *Ethics* and *Politics*).
Indian Philosophy
DAVIDS, MRS. T. W. RHYS, M.A. LOND. Spl. Lectr.

PHYSICS (v. also *Chem.*, *Engin.*)
RUTHERFORD, SIR ERNEST, KT., B.A. CAMB., M.A. N.Z., D.SC. N.Z. AND DUB., PH.D. GIES., LL.D. EDIN., F.R.S. Langworthy Prof. and Dir. of Phys. Labs.
SCHUSTER, A., SC.D. CAMB., PH.D. HEID., D.SC., F.R.S. Hon. Prof.
MAKOWER, W., M.A. CAMB., D.SC. LOND. Lectr. and Senr. Demr. and Asst. Dir. of Phys. Labs.
FLORANCE, D. C. H., M.A., M.SC. N.Z. Lectr. and Demr.
EVANS, E. J., B.SC. WALES AND LOND. Lectr. and Demr.
ROBINSON, H., M.SC. ,, ,,
MARSDEN, E., M.SC. Lectr. and Research Asst.
Electro-Chemistry
PRING, J. N., D.SC. Lectr. & Demr.
Electro-Technics
BEATTIE, R., D.SC. DURH., M.I.E.E. Prof. and Dir. of E.-T. Labs.
GERRARD, H., M.SC. Junr. Demr.
Mathematical Physics
DARWIN, C. G., B.A. CAMB. Reader.
Physics (for Technology)
GEE, W. W. H., B.SC. LOND., M.SC. TECH., A.M.I.E.E. *Lectr.
ADAMSON, A., M.SC.TECH., A.R.C.S. †Asst. Lectr.

* Prof. in School of Tech.

BUTTERWORTH, S., M.SC. Asst. Lectr. and Demr.

PHYSIOLOGY and Histology
STIRLING, W., M.D., D.SC. EDIN., LL.D. GLAS. Brackenbury Prof.
LAMB, F. W. J. A., B.A., M.D., D.P.H. DUB. Lectr.
HARRIS, D. T., B.SC. WALES Demr.
Experimental Physiology
BROWN, T. GRAHAM, M.D., B.SC. EDIN. Lectr.

POLITICAL ECONOMY, v. *Econ.*

POLITICS, v. *Philos.*

PUBLIC HEALTH and Bacteriology
DELÉPINE, A. S., M.B., C.M. EDIN., B.SC. LAUS., M.SC. Prof.
Practical Bact. and Microscopy
SIDEBOTHAM, E. J., M.A., M.B. CAMB. Lectr.
Pract. Comp. Pathology [Lectr.
SELLERS, A., M.D. EDIN., D.P.H.
Pract. Chem. applied to P.H.
HEAP, H., M.SC. Lectr.
P. H. Administration [Lectr.
TATTERSALL, C. H., M.R.C.S., D.P.H.
BRINDLEY, A. E., M.D. LOND., B.SC., D.P.H. Lectr.
v. also *Hyg.*, *Vet. H.*, *San. Engin.*)

RAILWAYS
Railway Transport
WATSON, A. Spl. Lectr.
HARPER, W. H. Spl. Lectr.
Railway Law
TURNER, H. P., M.A., LL.B., BAR.-AT-LAW Spl. Lectr.

RELIGION (v. also *Theol.*)
Comparative Religion
DAVIDS, T. W. RHYS, LL.D. EDIN., D.SC. SHEFF., PH.D. BRES., F.B.A. Prof.

† Lectr. in School of Tech.

Philosophy of Religion
MACKINTOSH, R., B.D. EDIN., M.A., D.D. GLAS. Lectr.

SANITARY ENGINEERING
RADCLIFFE, J., M.SC.TECH., F.R.S.I., R.P.C., F.R.M.S. *Lectr.
HERRING-SHAW, A., M.SC.TECH., A.R.S.I., R.P.C. †Asst. Lectr. and Demr.
NEWSOME, H. V. F., A.M.S.A. Asst. Lectr.

SOCIAL WORK
GRIERSON, G. K., M.A. OX. Lectr.

TECHNOLOGY (v. also *Archit., Chem., Engin., Langs.—German, Maths., Metall., Phys.*)
Building Construction
LEICESTER, W., M.S.A. Asst. Lectr. and Demr.
Bleaching, Dyeing & Printing & Paper Manufacture [‡Lectr.
HÜBNER, J., M.SC.TECH., F.I.C.
Fermentation Industries [†Lectr.
GRANT, J., F.I.C., M.SC.TECH., F.C.S.
Photography
GAMBLE, C. W., M.SC.TECH. ‡Lectr.
FISHENDEN, R. B. †Asst. Lectr. and Demr.
Textile Manufacture
FOX, T. W., M.SC.TECH. *Lectr.
MYERS, W. †Asst. Lectr. and Demr.
WINTERBOTTOM, J. ,, ,,

THEOLOGY (v. also *Langs.—Semitic, Religion*)
Biblical Crit. and Exeg.
PEAKE, A. S., M.A. OX., B.D., D.D. ABERD. Rylands Prof.
CANNEY, M. A., M.A. Prof.
MOULTON, PROF. J. H. Lectr.
WELLDON, BISHOP, M.A., D.D. CAMB. Lectr.
ALLEN, ARCHDEACON, M.A. OX. ,, [Lectr.
Ecclesiastical History
PROF. TOUT (v. *Hist.*) Bp. Fraser
History of Doctrine
MUMFORD, A. H., B.A. LOND., B.D. EDIN. Lectr.
MARSHALL, J. T., M.A. LOND., D.D. TOR. Lectr.
ALLEN, ARCHDEACON, M.A. OX. ,,
MELLONE, S. H., M.A. LOND., D.SC. EDIN. Lectr.

VETERINARY HYGIENE
WOODS, W., F.R.C.V.S. ENG. Lectr.

ZOOLOGY (v. also *Agric., Geol.*).
HICKSON, S. J., M.A. CAMB., D.SC. LOND., F.R.S. Beyer Prof. and Dir. of Zool. Lab.
LAPAGE, G., B.SC. Asst. Lectr. and Demr.
Economic Zool.
WARDLE, R. A., B.SC. Lectr.
Entomology
LEIGH, H. S., M.SC. Spl. Lectr.
Vertebrate Zoology
THOMSON, J. S., PH.D. BERNE (Demr. in Z.) Lectr.

CHANGES IN STAFF

Adeney, W. F., M.A., D.D., Lectr. in Hist. of Doctrine, resigned.
Anderson, W. B., apptd. Prof. of Imp. Latin.
Barratt, W. S., apptd. Asst. Lectr. in Maths.
Bennett, W. H., apptd. Lectr. in the Faculty of Theology.
Berry, R. G., vacated apptmt. of Spl. Lectr. on Railway Econ.
Boycott, A. E., of Guy's Hospl., apptd. *vice* Smith.
Brockbank, E. M., Lectr. in Pharmacol., &c., apptd. Lectr. in Clin. Med.

Prof. in School of Tech. † Lectr. in School of Tech.
‡ Dir. of Dept. in School of Tech.

Brooke, H. A. G., M.B., B.A., B.Sc., Lectr. in Dermatology, vacated apptmt.
Burrows, R. M., Prof. of Greek, apptd. Principal of King's Coll., Lond.
Burt, F. P., Junr. Demr., apptd. Senr. Lectr. in Chem.
Bury, J., M.D., B.Sc., F.R.C.P., Prof. of Clin. Med., apptmt. terminated.
Codd, A. E., Asst. Lectr. in Classics, apptd. Prof. of Latin in Qu. (Ont., Canada).
Cotton, R., M.Sc., Junr. Instr. in Drawing and Demr. in Engin., deceased.
Cunliffe, E. N., apptd. Lectr. in Clin. Med.
Delépine, H. G. S., apptd. *vice* Cotton.
Donald, A., Lectr. in Clin. Obst., apptd. *vice* Sinclair.
Doran, S. S., apptd. *vice* Norman.
Douglas, J. S. C., apptd. *vice* Mair.
Duxbury, J., Adviser in Reading, &c. (Educn.), vacated apptmt.
Dyson, W., apptd. Hon. Spl. Lectr. in Path. of the Skin.
Edgar, E. C., Senr. Demr., apptd. Senr. Lectr. in Chem.
Eggar, Miss M. E., apptd. Asst. Lectr. and Demr. in Educn.
Florance, D. C. H., apptd. *vice* Stansfield.
Forrester, R. B., Asst. Lectr. in Econ., apptd. Lectr. in Aberd.
Fothergill, W. E., Lectr. in Clin. Obst., apptd. Lectr. in Obst. and Gynæc.
Frith, J., apptd. *vice* Robertson.
Grant, J., Asst. Lectr. in Chem., apptd. Lectr. in Ferm. Ind. (Tech.).
Grierson, G. K., apptd. Lectr. in Social Work.
Harper, W. H., apptd. *vice* Lomas.
Higham, C. S. S., apptd. *vice* Waugh.
Holt, A., Asst. Lectr. and Demr. in Chem., apptd. Reader in Phys. Chem. in Liv.
Hughes, E. E., apptd. Lectr. in Clin. Anat.
Hutton, H. R., M.A., M.B., Lectr. in Dis. of Children, vacated apptmt.
Imms, A. D., apptd. Reader in Agric. Entomology.
Johnstone, Miss H., Senr. Asst. Lectr. in Hist., apptd. Reader at King's Coll. for Women, Lond.
Lailavoix, L., Asst. Lectr. in French, apptd. Lectr.
Lancashire, G. H., apptd. *vice* Brooke.
Lapage, C. P., Lectr. in Observation and School Hygiene, apptd. *vice* Hutton.
Lapage, G., apptd. *vice* Shann.
Lapworth, A., Senr. Lectr. in Chem., apptd. *vice* Perkin.
Leach, E. B., apptd. *vice* Brockbank.
Lomas, A. D., vacated apptmt. of Spl. Lectr. on Railway Econ.
Mair, W., M.A., B.Sc., M.D., Lectr. in Math., apptd. Research Pathologist to the Metrop. Asylums Bd.
Makower, W., Lectr. in Phys., made Asst. Dir. of Phys. Labs. in addition.

Mangan, J., Lectr. in Econ. Zool., made Asst. in Cairo Govt. School of Med.
Marshall, C. B., apptd. Demr. in Anat.
Melland, C. H., apptd. *vice* Lapage.
Morley, J., apptd. *vice* Todd.
Muir, R., Prof. of Mod. Hist., Liv., apptd. Prof. of Mod. Hist.
Mumford, A. H., apptd. *vice* Adeney.
Newsome, H. V. F., apptd. Asst. Lectr. in San. Engin.
Nicolson, J. T., Prof. of Mech. Engin., deceased.
Norman, H. W., apptd. Lectr. in Op. Dentistry.
Perkin, W. H., Prof. of Org. Chem., apptd. Waynflete Prof. of Chem. at Ox.
Powell, C., apptd. *vice* Duxbury.
Ramsbottom, A., apptd. Lectr. in Clin. Med.
Reynolds, E. S., Physician at Manc. Roy. Infirmary, apptd. Prof. of Clin. Med.
Robinson, R., Asst. Lectr. and Demr. in Chem., apptd. Prof. of Pure and Applied Chem. in Syd.
Robertson, A., apptd. Vulcan Fellow.
Sandeman, E., Chief Engr. of Derwent Valley Water Bd., apptd. Assoc. Prof. of Engin.
Sandiford, P., Lectr. and Demr. in Educn., apptd. Assoc. Prof. in Tor.
Searle, J. H. C., Junr. Asst. Lectr., apptd. Senr. ditto in Maths.
Sedgefield, W. J., Lectr., apptd. Prof. of Engl. Lang.
Shann, E. W., Asst. Lectr. in Zool., apptd. Asst. Prof. in St. And.
Shaw, W. F., apptd. Lectr. in Obst. and Gynæc.
Shimmin, A. N., apptd. *vice* Forrester.
Sinclair, Sir W. J., Prof. of Obst. and Gynæc., deceased.
Smith, J. L., Prof. of Path., apptd. Prof. at Edin.
Stansfield, H., Lectr. in Phys., apptd. Prof. in Hartley Coll., Southampton.
Stone, C. G., B.A., Junr. Asst. Lectr. in Hist., vacated the apptmt.
Stopford, J. B. S., Demr. in Anat., apptd. Senr. Demr.
Todd, T. W., Lectr. in Clin. Anat., apptd. Prof. of Anat. in West. Reserve Univ., Cleveland, Ohio.
Walls, W. K., apptd. *vice* Fothergill.
Watson, A., apptd. *vice* Berry.
Watson, D. M. S., apptd. Hon. Lectr. in Vertebrate Palæont.
Waugh, W. T., Junr. Asst. Lectr., promoted *vice* Johnstone.
Weizmann, C., Lectr. in Bio-Chem., apptd. Reader.
Williams, Miss M., Asst. Lectr. in French, apptd. Lectr. at King's Coll., Lond.
Williamson, R. T., apptd. Lectr. in Clin. Med.

GENERAL INFORMATION

Owens Coll. was opened in 1851. The Charter of 1880 by which the Univ. was founded established a federal constitution and made Owens Coll. a constituent Coll. of the Univ. Subsequently Univ.

Coll., Liverpool, and Yorkshire Coll., Leeds, were admitted as constituent Colls. A new Charter was issued on July 15, 1903, reconstituting the Univ. under the name of the Vict. Univ. of Manchester and freeing it from liability to admit or remain in association with any Coll. other than Owens, and on June 24, 1904, the Act for the Incorporation of Owens Coll. with the Univ. was passed.

FACULTIES. Arts; Science; Theology; Law; Medicine; Music; Technology (provided by the Municipal School of Technology); Commerce. *Departments.* Educn., Dent., Pharm., Pub. Health, and seven depts. of Technology (*see below*). There are Advisory Committees for Agric., Archit., Mining, Tech., Commerce, Theol., Pub. Health, Leg. Educn.

ADMISSION. The minimum age for admission to the Univ. of men students is 16, of women 17. For all degree courses the Matricn. examn. must be passed or some examn. accepted as an equivalent. The Univs. of Manc., Liv., Leeds, and Sheff. co-operate by means of a Joint Board (*v.* Appendix III) in conducting and controlling the Matricn. examn. Candidates are required to satisfy the examrs. in Engl. Lang. and Lit., Engl. Hist., Maths., and three of the following, one of which must be a language: Greek, Latin, French, German, some other approved language, Mech. or Phys., Chem., Geog., Nat. Hist. or Bot. An arrangement for mutual recognition has been made between the Northern Univs. and the Univs. of Lond., Ox., and Camb. For the certificate courses an entrance examn. is required.

DEGREES, &c. Arts—B.A., M.A., Litt.D.; Science—B.Sc., M.Sc.; D.Sc.; Divinity—B.D., D.D.; Law—LL.B., LL.D.; Medicine—M.B. and Ch.B., M.D., Ch.M.; Dentistry—B.D.S., M.D.S.; Music—Mus.B., Mus.D.; Technology—B.Sc.Tech., M.Sc.Tech.; Commerce—B.Com., M.Com. *Diplomas.* Educn.; Psych. Med.; Pub. Health; Vet. State Med.; Dentistry. *Certificates.* Social Work; Biblical Knowledge; Theol.; Engin.; Elec. Engin.; Applied Chem.; Technology; Factory Hygiene; School Hygiene; Sanitary Inspn.; Mining; Higher Comml. Educn.

The minimum period of attendance at Univ. courses, after Matricn.; required for the first degree is three years, except in Med. and Dentistry, in which it is five, and except in the case of grads. of approved Univs., who may be excused one year of attendance for the B.A., LL.B., B.Sc., and candidates for the B.Com. who present evidence of Univ. study satisfactory to the Faculty, who may also graduate after two years of study in the subjects for the degree.

Courses of instruction at the Harris Institute, Preston, are recognized by the Univ. as exempting under certain conditions from part of the attendance for the B.Sc. or B.Sc.Tech. Courses of instruction at the Camborne School of Metalliferous Mining are also recognized as constituting the third year's course for candidates for the B.Sc.Tech. in Mining under certain conditions.

There has been a great increase in recent years in the number of

Honours students, many of whom return to the Univ. for a fourth and fifth year.

ARTS. The compulsory subjects for the ordinary B.A. degree include Maths. or Logic or Pol. Econ.; Ancient or Mod. Hist.; Greek or Latin; English; one other language. Honours Schools—Class.; Hist.; Engl.; French; Ger.; Philos.; Archit.; Econ. and Pol. Sc.; Oriental Studies; Celtic Studies.

SCIENCE. Honours Schools—Maths., Engin., Phys., Chem., Zool.; Physiol., Geol., Bot., Anat., Psych., Metall.

The courses for *Engineering* Certifs. extend over three years and are substantially those for the Honours degree. They may be in either Civ. and Mech. or in Elec. Engin. Candidates have to pass an examn. at the end of the third year. The courses are not intended to supersede practical training. Some of the principal engineers in Manchester and the neighbourhood have signified willingness to receive certificated Engin. students into their works as apprentices. Certifs. of Distinction can be earned by a fourth year in the Labs. and an approved thesis.

The course for the Certif. in *Applied Chemistry* lasts three years. Exemption from attendance during the first year may be given by the Senate in exceptional circumstances. Successful completion of an investigation under direction of the teaching staff entitles to a certif. with distinction.

THEOLOGY. Candidates for the Bachelorship must be grads. of a Univ. of the U.K. or have completed the Interm. courses prescribed for the ordinary B.A., including Greek. The course for grads. is two years after graduation, and for others three years after completion of the Interm. courses in Arts. A certif. for Biblical Knowledge is granted to candidates passing an examn. instituted for the purpose. Min. age 18. The course for the certif. in Theol. extends over three years.

MEDICINE. For the M.B. and Ch.B. the regns. prescribe five years' medical study, of which at least two must be in the Univ. The other three may be at a Coll. or Med. School recognized for the purpose. One year after graduating as M.B. *and* Ch.B. a student may be examined for the Ch.M. if he has since graduation attended approved courses in Operative Surg., Bact. and Ophth. A candidate for the M.D. may present a dissertation or undergo a prescribed examn. if he has been engaged for at least one year after graduation in Med. Hospl. practice or for two years in practice not restricted to Surgery.

HOSPITALS for Clinical Instruction. The Royal Infirmary has 592 beds. St. Mary's Hospls. include depts. for women's and children's diseases (111 beds) and Maternity Dept. (50). The Royal Eye Hospl. has 130 beds, the Children's 168; Dis. of the Ear, 24; Christie Cancer Pavilion, 30; Consumption and Dis. of Throat and Chest, 150; Northern Women's and Children's, 70; Ancoats, 114; Salford Royal, 209. There is also a Dental Hospl.

Dental Dept. For the L.D.S. (Manc.) four years' and for the B.D.S. five years' professional study is required. A candidate for the M.D.S. must have had subsequently to obtaining the B.D.S. of the Univ. two years' practice as a Dental Surgeon or one year of scientific or hospital work and present a dissertation or pass an examn.

Pharmaceutical Dept. A student must have passed an examn. recognized by the Pharm. Soc. for registration as Apprentice or Student before entering on the Univ. courses. Post-grad. courses are arranged to meet the requirements of the Inst. of Chem. Final Examn., Branch E: Chem. of Food and Drugs, Fertilizers and Feeding Stuffs, Soils and Water. Pharmaceutics may be taken as one subject for the ordinary degree of B.Sc., or as part of the Honours School of Chem.

Pub. Health and Vet. State Med. Post-grad. courses are given adapted to the requirements of candidates for diplomas and of others wishing to undertake special studies or research. For the diploma in P.H. at least nine months' attendance is required. This diploma is a pre-requisite for the Special Certif. in Factory or School Hygiene. For the diploma in Vet. State Med. six months' attendance is necessary.

Technology. Degrees and Certifs. are awarded after a course extending over 3 years. The course is in one of the following divisions —Mech. Engin., Elec. Engin., San. Engin., Applied Chem., Mining, Archit., Textile Manufacture.

Mining. The certif. in Mining and B.Sc.Tech. in Mining are accepted by the Home and Indian Govts. in lieu of two of the five years' practical experience otherwise required of candidates for the Mine Managers' Certif. of Competency.

Commerce. A candidate for the B.Com. must have attended an approved course during three years, reducible to two on proof of previous Univ. study satisfactory to the Board of the Faculty. A B.Com. of one year's standing may offer a dissertation for the M.Com. degree.

A Higher Commercial Certif. is granted to candidates passing an examn. of the B.Com. standard whose attendance falls short of that required for the B.Com. by not more than one year. Evening courses in Pol. Econ. and Econ. Theory are arranged in connexion with the Manc. and Dist. Bankers' Assoc. with a view to preparing students for the examn. of the Inst. of Bankers, London.

Training of Teachers. The Diploma is awarded for post-grad. study extending over at least one year. Fielden School, Victoria Park, has been established for demonstration and practice in connexion with the Univ. courses. Facilities are provided for practice in numerous Pub. Schools in the neighbourhood. Experiments are being conducted in some of them in problems of school management. There are special schools for Deaf and Dumb, for Blind, and for Defectives, Country

School for Town Children, and Industrial Schools, in and near Manchester. About 50 men and 50 women are admitted each year to the Elem. Training Dept. The total number of students in the Educn. Dept. is about 300. At Easter a list of students about to complete their training and desiring apptmts. is circulated to schools and Educn. Authorities. Univ. Apptmts. registers are maintained.

Higher Degrees. The M.A. is open to a Bachelor of the Univ. of one year's standing who (1) presents a satisfactory thesis, or (2) has graduated with Honours in Arts or passes a prescribed examn.

The Master's degree in Science and Technical Science is open to a Bachelor of the Univ. of one year's standing who presents a satisfactory thesis.

The Litt.D., LL.D., and D.Sc. are conferred on grads. of the Univ. of at least four years' standing who give sufficient evidence of conducting original research.

Research Degrees have been instituted by the Univ. as follows: (1) Persons who have passed Degree examns. of approved Univs. may be allowed to offer themselves for the M.A., M.Sc., or M.Sc.Tech. in consideration of research, provided that they have conducted research in the Univ. for at least two years. (2) The Senate may admit as candidates for the M.A., M.Sc., or M.Sc.Tech. persons who have not passed Degree examns. of approved Univs. if they have attained an adequate standard of knowledge and provided they carry on research work in this Univ. for three years.

Masters are allowed to become candidates for the Litt.D. or D.Sc. after a course of study or research. The degree is conferred only on candidates distinguished by special research or learning.

Ample accommodation and equipment for Research work are provided (*see below under* Laboratories). Research students, on election by the Senate, are allowed the use of the Laboratories at a reduced fee.

Scholarships, &c., for Advanced Study. About 37 research fellowships, studentships, and scholarships of the aggregate value of over £2000 p.a. are offered every year, a considerable proportion of them being open to persons unconnected with the Univ. They cover a wide range of subjects—Classics, Engl., Hist., Econ., Russ., Science, Law, Med., Tech., &c. There are several Hon. Fellowships carrying the right to the use of Univ. Labs. and apparatus.

Position of Women. Women are now admitted on equal terms to all courses and are eligible for all degrees and appointments. The women students regularly attend the same classes as men. A special portion of the building is, however, assigned for their use, including Common Room, &c., and there is a special Tutor for women students, who undertakes the supervision of matters of conduct and discipline, and gives advice to students. A special dissecting-room is provided for women in the Faculty of Med.

Residential Facilities. There is no accommodation for the residence of students within the Univ. precincts. Students not living

at home or with some responsible relative or friend are recommended to reside at one of the licensed Halls, of which there are three (Dalton, Hulme, and Lister) for men, and two (Ashburne Hall and Victoria Church Hostel) for women. They provide accommodation for about 104 men and 80 women students. They are all situated within about a mile of the Univ. A list of registered lodgings is kept by the Bursar and the Tutor for Women Students.

Advisers of Indian Students (in the Univ.—Gilbert Cook; in the Municipal School of Technology—Prof. J. P. Wrapson) have been appointed by the Secy. of State in communication with the Univ. authorities.

Appointments. There is an Apptmts. Board with a paid Secy.; and a separate Secy. for women students. The Apptmts. Registers are available for students desiring to teach, to enter business houses or works, or to obtain secretarial posts or other employment.

Libraries. The Christie Library contains upwards of 128,000 vols. A Medical Library shared with the Manc. Med. Soc. has 41,200 vols. and over 200 journals. There are other important libraries not belonging to the Univ. to which students may obtain access, *e.g.* the Free Library (174,000 vols.) and the John Rylands (170,000 vols.), including many unique and rare works.

Museums. The Manchester Museum (open to the public) was established for the promotion of Nat. Sc. with special reference to Zool., Bot., Geol., and Mineral., and so far as practicable Ethnol. and Anthrop. and connected subjects. It has been recently extended to accommodate new Egyptol. and Geol. acquisitions.

The Laboratories are very extensive. (1) Special Labs., known as the "Frankland," "Schunk," "Thorpe," "John Morley" (presented by Mr. Andrew Carnegie), "Behrens," and "Cort," and the two Professors' private Labs. have been equipped for research work in Phys., Org., Applied Org., Inorg., Metall., and Electro-Chemistry. Several are specially adapted for the study of conditions for the manufacture of dyes, perfumes, &c., on a large scale, and manufacturers send their research chemists to carry out investigations in them. Provision has been made for research of a phys. or chem. nature at high temperatures. (2) The Physical Labs. erected in 1900 cost £36,000. The Electro-Technical Labs. enable effective instruction to be given in the testing and working of all the more important types of electrical plant. Special facilities for research are offered. (3) The Whitworth Engin. Labs. include Thermodynamic, Hydraulic, Elasticity, and Testing sections, and the Osborne Reynolds Research Lab. The Municipal and San. Engin. Dept. has benches for 132 students, all provided with the most modern appliances. (4) The Technological Labs. include also Brewing, Bleaching, Printing, Paper-making, and Textile Manufacture Labs. (5) The "Beyer" Nat. Hist. Labs., together with the Museum, cost

£95,000. The Botanical Labs. were extended in 1911 at a cost of £13,500. (6) The Medical School covers 27,000 sq. ft. (7) The Pub. Health Labs. cost £13,000.

OBSERVATORIES. Whitworth Park Meteorol. Obs. There is also a kite station at Glossop.

UNIV. EXTENSION. The work is directed by a Univ. Committee, but all local arrangements are made by the local Committees.

PUBLICATIONS relating to the Univ. (issued from the Univ. Press). *Periodical*—The *Calendar*, pubd. in Sept., price 2s. 6d.; *Univ. Mag.*, price 3d.; *Med. Students' Gazette*, price 3d. *Other*—"Univ. Educn. for Women" (Manc. Univ. Lectures), 6d.; "Demonstration School Record," 5s.; "Catalogue of the Christie Library" (in the press). The *Calendar* contains lists and critiques of books issued from the Univ. Press.

AFFILIATED INSTITUTIONS. The Harris Institute, Preston, and the Camborne School of Metalliferous Mining to the extent specified in the notes under Degrees. College of Agriculture, Holmes Chapel (*see below*, Changes of Regns.).

THE YEAR 1912–13

BENEFACTIONS received during the year. £35,000 bequest for endowment of Chairs of Chem. and Philos. and for scholarships in same subjects in memory of Sir Samuel Hall, late Vice-Chancellor of County Palatine of Lancaster; £1000 legacy for increasing endowment of Scholarships in Surgery, in memory of late Prof. Thomas Jones; £250 to complete purchase of Dresser Collection of Eggs; £50 towards cost of codifying records of Howard Estate Observatory; a tablet in memory of late Francis Thompson, poet, who was student of Owens Coll.

SPECIAL EVENTS. The King and Queen visited Manchester on July 14, 1913, and received an address from the Univ.

Sir Alfred Hopkinson resigned the Vice-Chancellorship, retaining the Christie Prof'ship of Law.

NEW DEPARTMENTS, &c. A Chair of "Imperial Latin." Its scope will be the Latin Lang., Lit., and Inscriptions of the Roman Empire.

A special Prof'ship of Modern History, to come into force in 1914.

The Chair of Engl. Lang. has been reinstituted.

Practical instruction by an expert engineer in special branches of Engin. has been provided for by the apptmt. as Assoc. Prof. of Engin. of a former Chief Engineer of the Derwent Valley Water Board.

Arrangements have been made with the Board of Agric. for the development of research in Agric. Zool., especially with respect to Econ. Entom. Rooms in the Beyer Building have been adapted for the purpose

at a cost of £400, which has been provided by the Board of Agric. The Board has also made a grant of £600 for the year towards the maintenance of the Dept. of Econ. Entom. Mr. A. D. Imms, Chief Entomologist to the Dept. of Forestry of India, has been appointed to conduct researches in connexion with this scheme.

Arrangements have been made with the India Office under which Mr. G. Cook and Prof. J. P. Wrapson will act as Advisers of Indian students in the Univ. and in the School of Tech. respectively.

A paid Secy. to the Apptmts. Board and a special paid Secy. for appointments for women have been sanctioned.

Univ. Extension. The movement for the establishment of Tutorial Classes for Workpeople has developed steadily. Owing to the new basis on which Govt. grants are to be made for this work, the number of classes to be established next Session is under careful consideration.

Number of Students. Full-time students preparing for the Bachelorship or for Diploma examns., 1177 (including 268 women); for Certif. examns., 178 (23 women); occasional students, 237 (27 women); evening classes, ordinary, 201 (45 women); Railway Economics, about 200; Law and Econ. (at the Bankers' Inst.), about 200; preparing for the Master's degree, 84 (17 women); for the Mus.D., 9; for other degrees attendance at the Univ. is unnecessary and the number of those preparing is unknown.

Research Fellows and students, Doctors, and Masters (not being teachers) engaged in research, 63 (including 12 women). Fifteen students in the Honours School of French spent the summer term in the Univ. of Caen in accordance with a scheme arranged for students n that School.

Degrees Conferred. *Honorary.* LL.D.—Jesse Haworth. Litt.D.—Thomas Ethelbert Page; Michael Ernest Sadler. M.Sc.—Robert Wood Williamson.

Other Degrees. B.A., 97; M.A., 49; Litt.D., 1; B.Sc., 100; M.Sc., 32; D.Sc., 5; B.D., 7; LL.B., 11; M.B., Ch.B., 19; M.D., 7; Ch.M., 1; Mus.B., 1; B.Sc.Tech., 19; M.Sc.Tech., 5; B.Com., 8; M.Com., 1.

Changes in Regulations. *Science.* New Honours Schools in Anat., Psych., and Metall. have been established, and a third section—Mining Geol.—added to the Honours School of Geol. Holders of the Diplomas of the College of Agriculture, Holmes Chapel, may in future under certain conditions proceed to the B.Sc. by attending in the Univ. for two years and passing prescribed examns.

Theology. A certif. has been established. The course will cover three years.

New Buildings. A new Museum providing accommodation for the Egyptian collections was opened on Oct. 30, 1912, by Mr. Jesse

Haworth ; an extension of the Library buildings has been commenced ; a site has been purchased for a new building to accommodate most of the Arts Depts.

New Hall of Residence. Lister House for Senr. Med. students who require to be close to the Roy. Infirmary has been licensed.

UNIVERSITY OF MANITOBA, WINNIPEG

[Established by Act of the Manitoba Legislature in 1877. Powers extended 1900.]

VISITOR	Hon. Sir DOUGLAS COLIN CAMERON, K.C.M.G., Lieut.-Govr.
CHANCELLOR	Most Rev. S. P. MATHESON, D.D., D.C.L., Archbishop of Rupert's Land.
VICE-CHANCELLOR	Sir JOSEPH DUBUC, B.C.L., LL.D.
PRESIDENT OF THE UNIVERSITY AND CHAIRMAN OF THE BOARD OF STUDIES	JAMES A. MACLEAN, Ph.D., LL.D.
CHAIRMAN OF THE UNIVERSITY FACULTY	FRANK ALLEN, M.A., Ph.D., F.R.S.C., Prof. of Physics.
HON. BURSAR	J. A. M. AIKINS, M.A., K.C., M.P.
REGISTRAR	WILLIAM J. SPENCE, B.A.
SECRETARY OF THE UNIVERSITY FACULTY	NEIL B. MACLEAN, M.A., Prof. of Mathematics.

AFFILIATED COLLEGES

represented on the Council of the Univ., and having power (except the two last) to confer degrees in Divinity:

ST. BONIFACE COLLEGE, St. Boniface, Man. (Roman Catholic).
Rector—Edouard Lecompte, S.J.

ST. JOHN'S COLLEGE, Winnipeg (Church of England).
Warden—J. J. Robinson, M.A.

MANITOBA COLLEGE, Winnipeg (Presbyterian Church in Canada).
Acting Principal—A. B. Baird, M.A., D.D.

WESLEY COLLEGE, Winnipeg (Methodist Church in Canada).
Acting Principal—Andrew Stewart, D.D.

MANITOBA MEDICAL COLLEGE, Winnipeg.
Dean—H. H. Chown, B.A., M.D., C.M.

MANITOBA COLLEGE OF PHARMACY, Winnipeg.
Principal—H. E. Bletcher, Phm.B.

(Affiliation of Manitoba Agricultural College was terminated in 1912.)

PROFESSORS, LECTURERS, ETC.

ARCHITECTURE
STOUGHTON, A. A., PH.B. COL. Prof.

BACTERIOLOGY
Pathology and Histology [Prof.
BELL, GORDON, B.A. TOR., M.D., C.M.

BOTANY
BULLER, A. H. R., B.SC. LOND., PH.D. LEIP., D.SC. BIRM. Prof.

CHEMISTRY [Prof.
PARKER, M. A., B.SC. GLAS., F.C.S.
ARMES, H. P., B.SC. LEEDS, PH.D. STRASS. Asst. Prof.
ARNASON, J., B.A. Demr.

ENGINEERING (v. also *Surv.*)
Civil Engineering
BRYDONE-JACK, E. E., B.A. N.BRUNS., C.E. RENSS., M.CAN.C.E., M.AM.S.C.E. Prof.
O'REILLY, A. H., B.C.E. Demr.
Electrical Engin.
FETHERSTONHAUGH, E. P., B.SC. MCG., M.CAN.S.C.E. Prof.
Elec. and Mech. Engin.
DORSEY, J. W., E.E. LEHIGH Lectr.
Masonry Constr. and Drawing
MOFFATT, R. W., B.A.SC. TOR. Lectr.
Materials and Hydraulics
BANKSON, E. E., B.S. IN C.E., PITTS. Lectr.
Mechanical Engin.
VACANT Prof.

ENGLISH
CRAWFORD, A. W., M.A. TOR., PH.D. CORN. Prof.
English Language
PERRY, A. J., M.A. YALE Lectr.

FRENCH
OSBORNE, W. F., M.A. TOR. Prof.

GEOLOGY and Mineralogy
WALLACE, R. C., M.A., D.SC. EDIN., PH.D. GÖTT. Prof.

GERMAN [Prof.
HEINZELMANN, J. H., A.B. ILL., PH.D.

HISTORY [Prof.
MARTIN, C. B., M.A. N.B. AND OX.
FLENLEY, R., M.A. LIV., B.LITT. OX. Lectr.

MATHEMATICS
MACLEAN, N. B., M.A. TOR. Prof.
WARREN, LLOYD A. H., M.A. QU., PH.D. CHIC. Asst. Prof.

PHYSICS
ALLEN, FRANK, M.A. N.BRUNS. AND CORN., PH.D. CORN. Prof.
MCCLUNG, R. K., B.A. CAMB., M.A. AND D.SC. MCG., F.R.S.C. Asst. Prof.
ANDERSON, O. T., B.A. Demr.

PHYSIOLOGY
VINCENT, S., M.D. LOND., D.SC. EDIN., M.R.C.S., L.R.C.P., F.R.SS.E. AND C. Prof.
CAMERON, A. T., M.A., B.SC. EDIN. Asst. Prof.

POLITICAL ECONOMY
CLARK, A. B., M.A. EDIN. Prof.
FRASER, T. H., M.A., LL.B. EDIN. Lectr.

SURVEYING and Geodesy [Prof.
JOHNSTONE, L. I., B.S. MAINE Asst.

ZOOLOGY
TRIGGERSON, C. J., M.A. MCM., PH.D. CORN. Asst. Prof.

GENERAL INFORMATION

The Act establishing the University authorized it to hold examns. and grant degrees, and provided for the granting of degrees in Divinity to students who should have obtained recognized academic standing in Arts subjects. The Act of 1900 authorized the Univ. to give instruction. Instruction in subjects in which the Univ. does not at present provide courses may be obtained either at one of the affiliated Colls. or, if class instruction in the subject in question is not given in an affiliated Coll., at some other recognized institn. The only difference in status between an affiliated and any other recognized* institn. is that the former are represented on the Univ. Council and Board of Studies. The general superintendence of all examns. is entrusted to the Board of Studies.

Faculties. There is one Univ. Faculty with departments in Arts and Science, Engineering, and Medicine.

There are Matriculation examns. for Arts and Science, Med., Engin., and Law. It is not necessary to pass completely at one time. The examn. may be taken in two (in the case of Engin. three) stages, or subject by subject, and a candidate may enter on a degree course as a conditioned student after partially passing the examn.

University Terms, 1913–14. First term, Sept. 24 to Dec. 23; second, Jan. 5 to April 9.

Degrees. Arts—B.A., M.A.; Science—B.Sc., M.Sc.; Law—LL.B.; Medicine—M.D., C.M.; Agriculture—B.S.A. (*ad eundem gradum*); Pharmacy—Phm.B.; Engineering—B.C.E., M.C.E., B.E.E., M.E.E.; Honorary—LL.D.; Diploma in Commercial Education.

Courses and Examinations. No student may present himself for examn. in a subject in which class instruction is given (by the Univ. or by an affiliated Coll.) who does not present from the Univ. Faculty or from an affiliated Coll. where such work is done in the Coll. a certif. of having attended 75 per cent. of the lectures. Non-collegiate students have to furnish evidence of good moral character and obtain the permission of the Board of Studies to appear at examns. They may not take courses in Med. or Engin. Appeals may be lodged against the standing assigned to a candidate by the examiners.

Arts. A 4 years course leads from Matricn. to the B.A. degree, there being Interm. examns. at the end of the 1st, 2nd, and 3rd years. The compulsory subjects of the 1st and 2nd years are Maths., Latin, Philos., Hist., and either Engl. or French, whichever is the language habitually spoken by the candidate. The optional subjects are Greek, French (or Engl.), German, Icelandic, Swedish, Phys., Chem., and

* The Univ. recognizes British Univs. and the leading foreign institns.

Nat. Sc. After the 2nd year a student pursues a general or a group course or a course in Philos. or Maths. or Pol. Econ. and Maths., or Nat. and Phys. Sc. The group courses are made up on the following plan: Any two majors, or a major and two minors from the following list—Greek, Latin, Hebrew (major only), Engl., French, German, Philos., Hist. (major only), and Pol. Econ. The M.A. degree is open to a B.A. who has completed 1 year's study over and above that required for the degree of B.A., under the direction of the Univ. or an affiliated Coll. A thesis is required in addition to passing an examn.

Science. From Matricn. a 4 years course leads to the B.Sc.degree. The compulsory subjects are Engl., Maths., Hist., French, German, Phys., and Chem.

Law. A 3 years course leads from Matricn. to the degree of LL.B. No instruction is offered by the Univ. There are annual examns. The min. age for the degree is 21.

Medicine. From Matricn. a 5 years course, including lectures at the Univ. or some other recognized Univ., Coll., or School, and hospl. attendance, leads through annual examns. to the M.D. degree. A graduate in Arts of a recognized Univ. may complete his course in 4 years. Honours may be obtained by reaching a high standard in examns. The C.M. degree may be taken simultaneously with or after the M.D. A thesis is required. A graduate in Med. in another Univ. desiring a licence to practise in Manitoba submits his degree to the Coll. of Physicians and Surgeons of Manitoba, and if it is found satisfactory is allowed to appear at an examn. held by the Univ. in April. A licentiate of Gr. Brit., by examn., may obtain a licence without examn.

Engineering. A 4 years course, including attendance at Univ. lectures and laboratory, field, and office work. There are annual examns. during the course. Students who intend to take out licences as Land Surveyors may select subjects from the Civil Engin. course which bear directly upon the examn. for the licence. Summer work and theses relating thereto are required after the 1st, 2nd, and 3rd years, and a special design or thesis is required for graduation. Theses for the M.C.E. degree may be presented 2 years later, the interval having been spent in the active practice of the profession. The requirements for the degrees of B.E.E. and M.E.E. are on similar lines, and for the first 2 years the courses for the B.C.E. and B.E.E. are the same.

Pharmacy. Candidates for the Phm.B. degree must, before entering on the prescribed course, have passed a Matricn. or equivalent examn. The course covers 3 years and may be taken either at the Manitoba College of Pharmacy or elsewhere, provided that the practical work is done at a Coll. of Pharmacy recognized by the Univ.

Commercial Education. A 2 years course leads from Matricn. to the Diploma examns.—one at the end of each year. There are no restrictions as to place of study.

An Annual Interchange of Teachers for a few days and for a few special lectures and conferences takes place between this Univ. and that of North Dakota.

Women are admitted to all courses on equal terms with men.

Residential Facilities. Halls of Residence are attached to all the affiliated Arts Colleges only.

Scholarships for Graduates. $600 per annum every alternate year, tenable for 2 years at some other seat of learning; open to grads. in special courses in Arts, in Med., or in Engin.

Library. 9000 vols. 164 periodicals are subscribed for.

Laboratories for Chem., Physiol., Material Testing (200,000 lb. capacity); cement, and Elec. Engin. (continuous current, standardizing and alternating current), Phys., Geol., and Mineral. and Zool.

University Extension. A pamphlet giving a list of available subjects for local free lectures is issued each year. Regular Extension classes have been organized in Winnipeg. The only continuous courses have been in Engl. Lit. and Pol. Econ.

Publications. The *Calendar*, issued in July, free.

THE YEAR 1912-13

Special Event. The appointment of a President.

New Departments and Posts. Chairs in Mech. Engin., Archit., French, and German, and a lectureship in Maths.

Number of Students. Full-time students preparing for the degree of B.A., 417 (including 103 women); B.Sc., 1; Law, 45; M.D. and C.M. and Licence examns., 168 (4 women); B.C.E. and B.E.E., 55. Students in Univ. Extension classes—Engl. Lit., 116 (93 women); Pol. Econ., 14; Hist., 15 (8 women). The foregoing figures represent students attending courses in the Univ or in affiliated Colls. They do not include private students.

Degrees Conferred. Honorary LL.D., 2; B.A., 75 (16 women); LL.B., 16; M.D., 28 (1 woman); C.M., 1; B.C.E., 4; B.E.E., 2; M.A., 5; *ad eundem* B.A., 10; B.Sc., 1; LL.B., 1; B.C.E., 1; B.S.A., 4.

Alterations of Regulations for Admission to the Degree of M.A. The new requirements are (1) the completion of one year's

study over and above that required for the Bachelor's degree, under the direction of the Univ. or an affiliated Coll. This course of study must embrace one principal subject and one subordinate related subject, to be approved by the Board of Studies. At least half the student's time must be devoted to his major subject. At least three-fourths of his work must be distinctly graduate in character, and any classes to which undergrads. are regularly admitted shall not be deemed graduate for the purposes of the course for the Master's degree.* (2) The student must pass an examn. on the above course of study. (3) He must submit an acceptable thesis on a subject connected with his major course; the subject of the same will be approved by the Board of Studies on recommendation of two or more instructors in the dept. in which the subject falls. The thesis may be submitted either at or subsequent to the time of examn.

New Buildings. A site for the Univ. buildings has been definitely selected and erection will shortly be begun.

Interchange of Teachers. During the year two teachers from North Dakota Univ. visited Winnipeg, and two from Winnipeg visited North Dakota.

* Grads. in Arts who are instructors, research fellows, or demonstrators for an entire session in the Univ. or in an affiliated Coll. may be allowed by the Board of Studies to substitute such instructional work for an amount of study not exceeding a minor.

UNIVERSITY OF MELBOURNE

[Incorporated by Act of the Victorian Legislature in 1853. Constitution defined by the Univ. Act, 1890, which was modified in 1903, 1904, 1909, and 1910.]

VISITOR	H.E. THE GOVERNOR OF VICTORIA.
CHANCELLOR	Sir JOHN MADDEN, G.C.M.G. B.A., LL.D., D.C.L.
VICE-CHANCELLOR	J. H. MACFARLAND, M.A., LL.D.
REGISTRAR	J. P. BAINBRIDGE, F.I.A.V., F.C.I.S.
LIBRARIAN	E. H. BROMBY, M.A.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE

CHERRY, T., M.D., M.S. Prof.

ANATOMY

BERRY, R. J. A., M.D., CH.M., F.R.C.S. EDIN., F.R.S.E. Prof.
UPJOHN, W. G. D., M.D., M.S. Stewart Lectr.
STEPHENS, H. D., M.D., M.S. Demr.
DOWNES, R. M., M.D., M.S. Demr.
MARTIN, F. B., M.B., B.S. Stewart Scholar.
TYMMS, A. S. M., M.B., B.S. ,,

Applied and Surface Anat.

MACKENZIE, W. C., M.D., B.S., F.R.C.S. Lectr.

ARCHITECTURE

HENDERSON, A. M., M.C.E. Lectr.

BIOCHEMISTRY

ROTHERA, A. C. H., M.A., M.R.C.S., L.R.C.P. Lectr. and Demr.

BIOLOGY [Prof.

SPENCER, W. B., C.M.G., M.A., F.R.S.
HALL, T. S., M.A., D.SC. Lectr. and Demr.
SWEET, GEORGINA, D.SC. ,,
BAGE, MISS, M.SC. Addl. Demr.
DAVIES, MISS O. B., M.SC. Junr. Demr.

BOTANY and Plant Physiology

EWART, A. J., D.SC., PH.D., F.L.S. Prof.
REES, BERTHA Lectr. and Demr.

CHEMISTRY (v. also *Biochem.*)

MASSON, D. O., M.A., D.SC., F.R.S.E., F.R.S. Prof.
GREEN, W. H., D.SC. Lectr. & Demr.
RIVETT, A. C. D., B.A., D.SC. ,,
GREEN, LEILA A., M.SC. Demr.
COLLIE, G. Junr. Demr.
HARTUNG, E. I. Junr. Demr.
SHIELS, D. O. Junr. Demr.
CRAIG, R. J. Junr. Demr.
BENNETT, F. N. Junr. Demr.
SCOTT, MISS M. Junr. Demr.

CLASSICAL PHILOLOGY

TUCKER, T. G., M.A., LITT.D. CAMB., HON. LITT.D. DUB. Prof.

CLASSICS

KERRY, W., M.A. Lectr.
CORNWALL, E. W., B.A. Evening Lectr.

EDUCATION [Lectr.
SMYTH, J., M.A., D.PHIL. EDIN.
MC RAE, J., M.A. Lectr.
General Method
WRIGLEY, L. J., M.A., DIP.PED. LOND. Lectr.
Teaching Engl., Hist. and Geog.
MITCHELL, SUSAN E., B.A., DIP.ED. CAMB. Lectr.
Teaching Maths. and Science
SHARMAN, M. S., M.A., M.SC. Lectr.

ENGINEERING (v. also *Archit., Mining*)
PAYNE, H., M.I.C.E., M.I.M.E. Prof.
Civil Engineering
HIGGINS, G., M.C.E., M.I.C.E. Lectr.
Design and Drawing
KERNOT, W. N., B.C.E. Lectr.
Electrical Engineering
BROWN, E. B., M.SC., A.C.G.I. Lectr.
Road Construction
MAC CORMACK, W. B. Hon. Lectr.
Surveying and Drawing [Instr.
LUPSON, J. T., L.S. Lectr. and

GEOLOGY and Mineralogy
SKEATS, E. W., D.SC., F.G.S. Prof.
SUMMERS, H. ST. J., D.SC. Lectr. and Demr. in *G.*
GRAYSON, H. J. *Petrology* Demr.

HISTOLOGY
FIELDER, W., F.R.M.S. Lectr.&Demr.

HISTORY
VACANT Prof.
WEBB, JESSIE, S.W., M.A. Even. Lectr.

HYGIENE, v. *Med.—Therap.*

LANGUAGES and Lit. (v. also *Classics*)
English Lang. and Lit.
WALLACE, R. S., M.A. Prof.
STRONG, A. T., M.A. Even. Lectr.
French
MAURICE-CARTON, F. I., M.A., B.-ÈS-L. O.A. Lectr.
German
VON DECHEND, W. Lectr.

LAW
MOORE, W. H., B.A., LL.D. Prof.
Contracts and Personal Property
LATHAM, J. G., M.A., LL.B. Lectr.
Equity
MACKEY, J. E., M.A., LL.B. Lectr.
Land and Conveyancing
GREGORY, R. H., LL.B. Lectr.
Wrongs and Procedure
MAGUIRE, J. R., B.A., LL.B. Lectr.

LOGIC
SMITH, T. J., M.A. Evening Lectr.

MATHEMATICS, Pure and Mixed
MANSON, E. J., M.A. Prof.
HOLMES, W. M., M.A., B.SC. Evening Lectr. in *Maths.*
MICHELL, J. H., M.A., F.R.S. Lectr. in *Mixed M*

MEDICINE and Surgery
Bacteriology
BULL, R. J., M.D., B.S. Lectr.
THOMAS, ELSIE L., M.B., B.S. Demr.
GROSS, RACHEL H., M.B., B.S. ,,
Clinical Medicine and Clin. Surg.
STAFFS OF THE MELBOURNE, ALFRED, AND ST. VINCENT'S HOSPITALS
Forensic Medicine [Lectr.
MOLLISON, C. H., M.B., B.S., M.R.C.S.
Materia Med. and Pharmacy
COLE, F. H., M.D., B.S. Lectr.
PLOWMAN, S., F.R.C.S. Lectr.
Medicine, Theory and Practice of
MAUDSLEY, H., M.D., F.R.C.P. LOND., M.R.C.S. ENG. Stewart Lectr.
Obstetrics and Gynæcology
ADAM, G. R. W., M.D., M.S. Lectr.
SPOWERS, E. A., M.D., B.S. Demr.
Pathology [Prof.
ALLEN, H. B., M.D., B.S., LL.D.
CAMPBELL, S. J., M.B., B.S. Stewart Lectr.

GARNETT, W. S., M.B. Hon. Demr.
Surgery [Stewart Lectr.
BIRD, F. D., M.B., M.S., M.R.C.S. ENG.
Therap., Diet. and Hygiene
SPRINGTHORPE, J. W., M.A., M.D., M.R.C.P. Lectr.

METALLURGY
HIGGIN, A. J., F.I.C. Lectr.

MINING
MERRIN, A. H., M.C.E. Lectr.

MUSIC [Prof.
PETERSON, F. S., MUS.BAC. Ormond

PHILOLOGY, v. *Class. Philol.*

PHILOSOPHY, Mental & Moral
GIBSON, W. R. B., M.A., D.SC. Prof.
STEWART, J. MCK., B.A., PH.D. Lectr.

PHILOSOPHY, Natural
LYLE, T. R., M.A., D.SC., F.R.S. Prof.
LOVE, E. F. J., M.A., D.SC., F.R.A.S. Lectr. and Demr.
HOLMES, W. M. (v. *Maths*). ,,
ROSSITER, A. L., M.SC. Demr.
WOOD, MISS B., B.SC. Junr. Demr.

PHYSIOLOGY [Prof.
OSBORNE, W. A., M.B., B.CH., D.SC.
THWAITES, A. H., B.V.SC., M.SC. Lectr. and Demr.
KINCAID, MISS H., D.SC. Univ. Scholar.
Clinical Physiol. [Lectr.
WILKINSON, J. F., M.D., B.S. Hon.
Physiol. of Special Senses
BARRETT, J. W., M.D., M.S., F.R.C.S. ENG. Hon. Lectr.

POLITICAL ECONOMY
KELLY, E. C. W., LL.M. Lectr.

VETERINARY PATHOLOGY
WOODRUFF, H. A., M.R.C.V.S., M.R.C.S., L.R.C.P. Prof.
Canine Diseases
BORDEAUX, E. F. J., B.-ÈS-L., G.M.V.C. Hon. Lectr.
Vet. Anat. and Surg.
LEWIS, J. C., B.V.SC. Lectr.
MCLENNAN, G. C. Caroline Kay Scholar in *Vet. Anat.*
Vet. Hygiene and Diet. [Lectr.
CAMERON, S. S., D.V.SC., M.R.C.V.S.
Vet. Materia Med. & Pharmacy
ROBERTSON, A. W. D., M.D., B.S. Lectr.
Vet. Med. and Obstetrics [Lectr.
KENDALL, W. T., D.V.SC., M.R.C.V.S.
Vet. Parasitology
SWEET, GEORGINA, D.SC. Lectr.

CHANGES IN STAFF

Allen, H. B., Prof. of Pathol., was granted leave for 1912 to visit Europe.
Cherry, T., formerly Dir. of Agric. for Vict., Prof. of Agric.*
Dunhill, T. P., formerly Surgical Clin. Tutor at St. Vincent's Hospl., apptd. *vice* Shields.
Elkington, J. S., Prof. of Hist. and Pol. Econ., resigned.
Garnett, W. S., apptd. Hon. Demr. in Pathol.
Gibson, W. R. B., apptd. *vice* Laurie.
Gilruth, J. A., Prof. of Vet. Pathol. and Dir. of Vet. Institute, resigned on apptmt. as Administrator of the Northern Territory.
Green, Miss L., apptd. Demr. in Chem.
Kernot, W. N., Lectr. on Engin. Design and Drawing.
Laurie, H., Prof. of Mental and Moral Philos., resigned.
MacCormack, W. B., apptd. Hon. Lectr. in Road Construction.

* New appointment.

Page, Miss, apptd. Additional Demr. in Biol.*
Rees, Miss B., apptd. Lectr. and Demr. in Botany.
Rossiter, A. L., apptd. Demr. in Nat. Philos.
Shields, D., Clin. Lectr. in Surgery, resigned.
Smith, J. A. R., apptd. *vice* Dunhill.
Spencer, W. B., Prof. of Biol., was granted leave of absence for 1912 to act as Special Commissioner of Aborigines in the Northern Territory and to inaugurate a Commonwealth Aboriginal Dept.
Spowers, E. A., apptd. Demr. in Obstetrics.
Strong, A. T., apptd. Evening Lectr. in English.
Thwaites, A. H., apptd. Lectr. and Demr. in Physiol.
Upjohn, W. G. D., apptd. Stewart Lectr. in Anat.
Wallace, R. S., apptd. Prof. of Lang. and Lit.
White, Miss R. E. J., Lectr. and Demr. in Botany, resigned on receiving an apptmt. under the Queensland Govt.
Woodruff, H. A., Prof. of Vet. Med. at R.C.V.S., London, apptd. *vice* Gilruth.
Junior Demrs. and Scholars were appointed in Anat., Biol., Chem., Nat. Philos., Path., Physiol., and Vet. Anat.

GENERAL INFORMATION

FACULTIES, &c. Arts; Science; Law; Medicine; Dentistry; Veterinary Science; Engineering; Agriculture. There are a Univ. Conservatorium of Music (*Director*—The Ormond Prof.) and Music Examn. Board, and a Univ. Extension Board. A Schools Board, including representatives of the Univ., the Dept. of Educn., the Registered Secondary Schools, and business interests, deals with studies, inspections, and examns. (including public examns.), prescribing books and details of subjects, recommending examiners, &c., and also making recommendations to the Professorial Board concerning Matricn.

MATRICULATION. The minimum age is 16. Candidates must pass (*a*) the Senior Public examn., or (*b*) the Junior and in the subjects of any one group in the Senior, or (*c*) a Special examn. for entrance to the courses in Med., Dent. Surg., and Vet. Sc.

TERMS. The academic year begins on the 9th Mon. in the calendar year (March 2, 1914) and ends on the Sat. (Dec. 19, 1914) preceding the 51st Mon. and is divided into 4 terms. The 1st lasts 12 weeks. The 2nd begins on the 23rd Mon. and lasts 10 weeks. The 3rd begins on the 35th Mon. and lasts 10 weeks. The 4th or examn. term begins on the 47th Mon. and lasts 4 weeks. The Music Conservatorium has different terms.

DEGREES, &c. Arts—B.A., M.A., D.Litt.; Science—B.Sc., M.Sc., D.Sc.; Law—LL.B., LL.M., LL.D.; Medicine—M.B. and B.S., M.D.,

* New appointment.

M.S.; Dentistry—B.D.S., D.D.Sc.; Veterinary Science—B.V.Sc., D.V.Sc.; Music—Mus.Bac., Mus.Doc.; Engineering—B.C.E., B.M.E. (Mining), B.E.E., B.Mech.E., M.C.E., M.M.E., M.E.E., M.Mech.E.; Agriculture—B.Agr.Sc.

Diplomas of Analyt. Chem., Pub. Health, Trop. Med., Mining, Metall., Archit., Music, Educn., Agric. Licence in Vet. Sc.

In order to proceed to a degree in any course or to the Diploma in Educn. candidates must matriculate, passing in prescribed subjects; other Diplomas can be taken without matriculation. No candidate for a Degree, Diploma, or Licence may without special permission proceed with the work of the second or any subsequent year, unless he has passed the examns., &c., of the previous portion of the course. The Univ. Act of 1904 provided for the recognition of approved courses of work in Schools of Mines and Agric. Colls. in Victoria for the purpose of fulfilling the conditions necessary to obtaining Degrees and Diplomas in these subjects, and for the admission of students to Diploma courses without their having passed in the full number of subjects necessary for Matricn., and for the free admission of at least 80 students for a 4 years course in Mining and Agric.

Arts. Engl., Latin, Greek, Geom., and Algebra are compulsory entrance subjects. A 3 years course leads to the B.A. degree. A B.A. of at least 1 year's standing who has passed an examn. in one group of Arts subjects or taken Final Honours at the conclusion of the B.A. course may be admitted M.A. A M.A. of at least 3 years standing who has submitted a satisfactory original contribution to some branch of Literature or Knowledge may obtain the D.Litt. degree. The course for the *Diploma of Education* covers 3 years. Candidates who have completed the first 2 years of the course for any Degree within the Univ. and performed a satisfactory course in Elem. Psych. may be admitted to the 3rd year of the course for the Diploma.

Science. A 3 years course leads to the B.Sc. degree. A B.Sc. of at least 2 years standing who has been classed at the Final Honour examn. at the conclusion of the B.Sc. course may be admitted to the M.Sc. degree. Candidates for the D.Sc. must be graduates of at least 3 years standing and submit a thesis. Candidates for the *Diploma of Analytical Chemistry* must have obtained Final Honours in Chem. or passed an examn. equivalent thereto and subsequently attended during 9 mos. an approved course in Technical Chem. analysis and passed an examn. therein.

Law. A 4 years course, of which the first 2 years may be those of the Arts course, leads to the LL.B. degree. A LL.B. of 1 year's standing who has been classed at the Final Honour examn. for the LL.B. may be admitted to the degree of LL.M. Candidates for the LL.D. must be LL.M. of at least 2 years standing.

Medicine. Clinical work begins after the 2nd examn. held at the end of the 2nd term of the 3rd year of the 5 years Med. course for the

M.B. and B.S. A Bachelor of at least 2 years standing may proceed by examn. or thesis to the M.D. A B.S. of at least 2 years standing may proceed by examn. only to the M.S. Candidates for the *Diploma of Public Health* must be M.B. and B.S. of at least 1 year's standing and proceed by examn. after attendance upon special courses.

Dentistry. The course for the B.D.S. covers 4 years. The special dental work is done in the affiliated Australian Coll. of Dentistry.

Veterinary Science. A 5 years course leads to the B.V.Sc. The 1st year is the same as for Med., and Science candidates who have completed the 4th year may be admitted to the Licence. A B.V.Sc. of 2 years standing may proceed to the D.V.Sc. by examn. or thesis.

Music. A 3 years course leads to the Mus.Bac. The Mus.Doc. may be taken 3 years later. The course for the Diploma also covers 3 years. The 2nd and 3rd years are identical with the 1st and 2nd years for the Mus.Bac.

Engineering. The course for the Bachelorship covers 4 years. For the 1st year it is the same in all branches. Candidates must have acquired proficiency in First Aid to the Injured, and after passing the examn. of the 4th year must spend 12 mos. in a branch of Engin. appropriate to the Degree. Candidates for the Master's degree must be Bachelors of at least 1 year's standing. The *Diploma* courses cover 3 years. Candidates in Mining and Metall., after completing the 3rd year, must spend 12 mos. in acquiring practical knowledge of the subject. Candidates for the Diploma in Archit. must, in addition to attending lectures, be engaged in acquiring a practical knowledge of the subject under a competent architect and continue this during 12 mos. succeeding the examn. of the 3rd year.

Agriculture. A 4 years course leads to the B.Agr.Sc. degree. The 1st year is similar to that for Med. or Sc. In the first 3 years candidates, in addition to attendance on lectures and laboratory work, must perform certain special field work. The 4th year is passed at an approved Agric. Coll. After this at least 4 months must be spent in acquiring a knowledge of some special branch of Agric. work. A 3 years course, during the first 2 of which special field work must be performed, leads to the Diploma. The 3rd year is spent at an Agric. Coll.

Training of Teachers. The Diploma of Educn. (*v. under* "Arts") or its equivalent is requisite for registration in Vict. as a Secondary Teacher. Registration for School Teachers in other than State Schools is compulsory. Each year 20 certificated Teachers of the Educn. Dept. are admitted free to the course for the Diploma. Special concessions are made to all certificated teachers of the Educn. Dept. and students of the Training Coll. of the Dept. who are candidates for the Diploma.

Scholarships, &c., open to Graduates. The Govt. gives an annual grant of £2000 for Research Scholarships, and there are many others.

Advanced Study. Three first-class return passages are granted annually by the Orient Line to graduates of this Univ. proceeding to Europe for study.

Women were admitted to Matricn. and to all courses except Med. in 1879 and to the Med. course in 1887. They are eligible under the Univ. Act of 1890 for admission to Degrees, Diplomas, Certifs., and Licences (*see also below*, "The Year 1912–13—Important Changes").

Residential Facilities. The Act of 1890 provides for the affiliation of Colleges and licensing of boarding-houses (*see below*, "Affiliated Colleges").

Libraries. The Univ. has a General Library of 26,000 vols. and Med. and Chem. Library of 11,000 vols. There are also Coll. Libraries.

Museums and Laboratories. There are museums in the Biol., Geol., Engin., Anat., Path. (10,000 specimens), and Vet. Depts., and labs. in these and in the Nat. Philos., Chem., Metall. and Mining (with 3 head stamp battery and complete plant capable of testing bulk samples of ore), Physiol., Bact., Dent., and Agric. Depts. The Bact. Dept. undertakes investigations for Govt. Depts. and Hospls. and Med. practitioners. There is a Vet. Research Inst. Second and third year Agric. students attend practical work in farm practice at the Sparrovale Irrigation Farm, Geelong Harbour Trust. Fourth year students perform 12 mos. practical work at Dookie Agric. Coll.

Evening Lectures are delivered, generally by a special staff, in subjects of the 1st and 2nd years Arts and Educn. courses and in certain subjects for the Diplomas of Agric., Mining, Metall., and Archit. They cover the pass work only.

University Extension Lectures are provided for several local centres.

Public Examinations. These include Junior and Senior and Junior Comml. and Senior Comml., the last being held once and the others twice annually. Public examns. in Music are conducted by the Music Examn. Board.

Publications. The *Calendar*, price 3s. net, including Council's annual report, with list of publications of members of the Staff and Research Students; *Examn. Papers*, 1s. each set; *Handbook of Pub. Examns.*, pubd. in July, 1s.; *Univ. Magazine*; *Speculum* (Med. Students' Journal); collected reprints: also, free, a short guide to the Univ.; Conservatorium prospectus; Syllabus of Pub. Examns. in Music.

Affiliated Institutions. When the grant of lands for Univ. purposes was made, 4 blocks of about 10 acres each were reserved for the erection of residential Colleges in affiliation with the Univ., and these reserves were conveyed to trustees on behalf of the Anglican, Presbyterian, Methodist, and Roman Catholic Churches respectively. The 3 Colleges which have been erected provide in all for rather less than 250 resident students, but they have in addition a considerable number of non-resident students. Although each is controlled by representatives of its denomination, they are all open to members of all religious denominations.

Trinity College, opened in 1872 for members of the United Church of England and Ireland. Besides apartments for the Warden, Tutors, and men students, the buildings include a Chapel, Chem. and Biol. Labs., Libraries (8000 vols.), Museum, and a Women's Hostel, which is an integral part of the College.

Warden—A. Leeper, M.A., LL.D. *Vice-Warden*—E. I. Robson, M.A. Camb.

Other Teachers (excluding those on the Univ. Staff) : T. C. Sutton, B.Sc. (*Chem., Maths., and Phys.*) ; Mrs. E. Wood, M.A. (*French*) ; Fräulein Mathèse (*German*) ; M. G. Patten, M.A. (*Logic and Philos.*) ; H. Sutton, M.D., B.Sc. Ox., and I. Jones, M.B., B.S. (*Med. and Surg.*).

Ormond College, built on land granted to the Presbyterian Church, was established in 1881.

Master—J. H. MacFarland, M.A., LL.D.

Other Teachers (excluding those on the Univ. Staff) : H. W. Allen, M.A., and E. D. Ulrich, M.A. (*Classics*) ; F. H. Campbell, M.Sc. (*Chem.*) ; Miss E. Derham, M.A. (*Engl.*) ; Mrs. E. Wood, M.A. (*French*) ; Fräulein Mathèse (*German*) ; M. G. Patten, M.A., and Miss K. A. Lush, B.A. (*Logic and Philos.*) ; C. E. Weatherburn, M.A., B.Sc. (*Maths. and Nat. Philos.*).

Queen's College, opened in 1888 on land granted to the Methodist Church. It is governed by a Council under the general control of the Vict. and Tasm. Conference of the Methodist Church. It has a Chem. and Biol. Lab.

Master—Vacant.

Other Teachers (excluding those on the Univ. Staff) : Miss G. Buchanan, M.Sc. (*Biol.*) ; Miss R. Sugden, B.Sc. (*Chem.*) ; T. S. Clyne, M.A., and Miss E. Robbins, B.A. (*History*) ; R. C. Mills, LL.M. (*Logic and Hist.*) ; Miss E. Nelson, B.Sc. (*Maths. and Phys.*) ; G. Lamble, M.D., B.S. (*Med. and Surg.*).

Australian College of Dentistry. *President*—Sir John Madden, G.C.M.G., LL.D., D.C.L. *Secretary*—E. Joske, LL.B.

Teaching Staff (excluding members of the Univ. Staff) : E. B. Nicholls, M.A.C.D. (*Anat.*) ; A. W. Craig, M.A. (*Chem.*) ; W. J. Tuckfield, M.A.C.D. (*D. Mech. and Metall.*) ; E. Nihill, L.R.C.P. Lond., M.R.C.S. Eng., M.D., Ch.B. Dur. (*Med., &c., Genl.*) ; G. B. Pritchard

D.Sc. (*Metall.*) ; H. M. Hewlett, M.B., Ch.B. Melb., M.R.C.P. Edin. (*Physiol.*) ; J. Iliffe and H. H. Ham, L.D.S., D.D.S. (*D. Surg., &c.*) ; G. Lamble, M.D., B.S. (*Surg., &c., Genl.*) ; W. A. James, M.D., M.S. (*Surg., Oral*) ; E. S. Fischer, L.D.S. (*Technique, Operative*) ; F. A. Kernot and E. F. Greenwood (Hon. Lectrs. in X-Rays) ; R. W. Hornabrook, M.B., Ch.B. Adel., M.R.C.S., L.R.C.P. London (Hon. Anæsthetist) ; E. R. Owen, L.D.S. (*D. Mech.* Demr.) ; J. D. Surman (*Crown and Bridge Work* Demr.) ; J. K. Clark, L.D.S. (*Graduation Fillings* Demr.) ; F. S. Parrett, L.D.S., B.D.S. (*Anæsthetics* Demr.).

THE YEAR 1912–13

Benefactions. £600 to found a Bursary for a Med. student ; £107 to found a prize (biennial), in memory of late Prof. E. E. Morris, for an essay on a subject connected with Lit. criticism ; £500 for equipment of special Physiol. room ; £2500 for a "Harbison-Higinbotham" Scholarship for a thesis in Hist., Econ., Politics, &c., with preference to research in relation to Australia ; £1000 for a "Melba" Hall in the Conserv. of Music ; £500 towards institution of an Anthrop. Dept. ; from the Govt. of Victoria £5000 for extension of Chem. and Physiol. (including Biochem.) Depts. and £2000 for conversion of old Museum building into a Union House for students ; from various sources £800 for furnishing the Union House (*v. also* "New Buildings").

New Posts. Prof'ship of Agric. ; Addl. Dem'rship in Biol.

Extension Lectures. Courses were delivered in 1912 in Melbourne and in 4 local centres.

Public Examinations. The number of entries in 1911–12 for these, excluding Music, was 3861. For the examns. conducted by the Music Examn. Board 1981 candidates entered.

Number of Students (1911). Total, 1139, including 196 women, 81 attending Evening Lectures, and 38 Research students. Conservatorium of Music—preparing for Mus.Bac., 5 ; for Diploma, 49 ; others, 37 ; total, 91 (80 women).

Degrees Conferred (1911–12). B.A., 31 ; M.A., 17 (including 2 *ad eundem*) ; LL.B., 15 ; LL.M., 3 ; B.Sc., 13 (including 1 *ad eundum*) ; M.Sc., 3 ; D.Sc., 2 ; B.Agr.Sc., 1 ; M.B., 57 ; M.D., 15 ; B.S., 56 ; M.S., 2 ; B.D.S., 9 ; B.V.Sc., 3 ; B.C.E., 10 ; M.C.E., 1 ; B.Mi.E., 3 ; B.Mech.E., 1 ; Mus.Bac., 3. *Diplomas.* Music, 3 ; Educn., 33. *Licences* in Vet. Sc., 8.

Important Changes in Regulations. (1) The Govt. has at the request of the Univ. prepared a Bill to remove all disabilities of women in regard to seats in the Council or Senate of the Univ. (2) The preparation of an amended Arts curriculum was nearly completed. (3) The Statute of Admission *ad eundem gradum* has been changed so that

admission is no longer given as a matter of course to graduates of recognized Univs. ; as a rule the Final examn. is insisted on. Bachelors of approved Univs. may proceed to the examn. for Higher Degrees. It has been provided that " the Council may, as a special grace, admit to any degree in the Univ. any graduate of another Univ. who is recommended for such admission by an absolute majority of the Professorial Board and by an absolute majority of the Faculty, if any, corresponding to the degree which is to be conferred." (4) The Schools Inspection and Examn. Board, which was purely a Univ. body, has been replaced by a Schools Board (*see* opening para.).

The New Buildings of the Engin. Dept. constructed under the vote from Govt. of £30,000 are now complete, and progress has been made in the work of installing new machinery and apparatus (*v. also* " Benefactions "). The new theatre for Physiology is now fully equipped. A Zeiss epidiascope and complete Zeiss outfit for micro-photography have been obtained.

New Amenities. The new Union building for students is now in regular use.

Other New Developments. The Univ. Rifle Corps is now working under the Defence Regns. and will soon include all the male students of the Univ. The newly formed Graduates' Assocn. is actively at work, with an annual dinner, a Graduates' Day, occasional lectures, &c.

Relations with Other Bodies. The new buildings of the Australian Institute of Tropical Medicine at Townsville, Queensland, were opened by the Governor of Queensland, Sir William MacGregor, on June 26, 1913. The staff under the Director, Dr. Anton Breuil, has been increased by the apptmt. of Dr. Nicoll, Helminthologist, and Dr. Young, Biochemist, and Dr. Priestley, a graduate of Sydney who was working in the Lister Inst. The Inst. is in association for teaching purposes with the Univs. of Syd., Melb., and Adel.

Steps are being taken towards the foundation of an affiliated Coll. within the Univ. by the Roman Catholic Church, and the building of a Women's Hostel in connexion with Queen's Coll.

MOUNT ALLISON UNIVERSITY, SACKVILLE, N.B.

[Established in 1862 under an Act of 1858 of the Legislature of N.B. as the "Mount Allison Wesleyan College." Name changed in 1886 to "The Univ. of Mt. Allison Coll.," and in 1913 to "The Mt. Allison Univ."]

CHAIRMAN OF THE BOARD OF REGENTS	C. JOST, D.D.
PRESIDENT OF THE SENATE	B. C. BORDEN, D.D.
SECRETARY	A. D. SMITH, LL.D.
REGISTRAR OF THE FACULTY OF ARTS	Prof. W. M. TWEEDIE, M.A.
DEAN OF THE FACULTY OF APPLIED SCIENCE	Prof. L. KILLAM, M.A., B.Sc.
DEAN OF THE FACULTY OF THEOLOGY	Prof. HOWARD SPRAGUE, M.A., D.D.

PROFESSORS, LECTURERS, ETC.

CHEMISTRY
BIGELOW, H. E., PH.D. Prof.

ENGINEERING, Civil
CROWELL, J. W., B.S., C.E. Prof.
Mechanical Engineering
MCKIEL, H. W., B.A., LL.B. Prof.

LANGUAGES and Literature
Classics
SMITH, A. D., LL.D. Wood Prof.
English Lang. and Lit.
TWEEDIE, W. M., M.A. Prof.
French Lang. and Lit.
PALMER, J. M., M.A. Prof.

LAW (Contracts and Torts)
TRITES, R., B.A., LL.B. Lectr.

MATHEMATICS
HUNTON, S. W., M.A. Prof.

PHYSICS
WHEELOCK, F., PH.D. Prof.

POLITICAL SCIENCE
PRESIDENT BORDEN Prof.

PSYCHOLOGY and Logic [Prof.
DWIGHT, C. A. S., PH.D. H. A. Massey

THEOLOGY
SPRAGUE, H., D.D. Prof. of *Christ. Ev.* and C. F. Allison Prof. of *Syst. Theol. and N.T. Exeg.*
DESBARRES, F. W. W., B.A. Prof. of *Ethics* and of *Engl. Bible and Church Hist.*
WATSON, W. G., B.D. Prof. of *Hebrew* and of *O.T. Exeg.*
CAMPBELL, G. M., D.D. Prof. of *Homiletics and Pract. Theol.*
GORNALL, H. T. Tutor in *N.T.Greek.*

CHANGES IN STAFF

Given, P., M.A. Harv., Prof. of Psychology, returned to Harvard and was succeeded by Dwight, C. A. S.

GENERAL INFORMATION

The ultimate ownership of the Univ. is in the General Conference of the Methodist Church of Canada. The direct government is vested in a Board of Regents and Senate, and the General Conference exercises a controlling influence solely through its power of appointing a large majority of the Regents. In its internal administration the Univ. has always been conducted on strictly non-sectarian principles and a considerable number of the students are not Methodists. There is a "University" Faculty in which are included all the members of the Faculties of Theology and Applied Science.

Degrees, &c. B.A., M.A.; B.D.; Mus.B. Honorary—D.D., LL.D., D.C.L. Certificates for various courses of study.

Terms. First term 1913–14 begins Sept. 20; second, Jan. 3.

Examns. are held at the end of each term, and a student's standing depends on these and on work during the term. Students must be in residence throughout the term.

Arts. The course for the B.A. covers 4 years, starting from "Junior" Matricn.; but by passing, in addition to the ordinary Matricn., examns. on the subjects of the 1st year, students can gain admission to the 2nd year of the course. Holders of the N.S. Provincial High School Certif. of Grade A and Teachers holding the Superior School Licence of N.B. are admitted without further examns. (except n subjects not covered by the Certif.) to the 2nd year. The compulsory subjects are—Latin, Greek or French or Ger., Maths., Engl., Phys., Chem., Logic and Psych., Ethics and Evidences of Christianity. There are Honour courses in Maths., Phys., Chem., Old and Middle Engl.

A 2 years course leading to a Certif. in Finance and Commerce is provided.

The M.A. degree may be taken by a B.A. of 1 year's standing who has taken (in his undergrad. course or later) the full Honour course in any Dept., or at least 1 year's post-grad. work in Mt. All. or some other approved Univ. and passed satisfactory examns. thereon. A thesis is required.

Theology. Candidates for the B.D. must be grads. in Arts of at least 2 years standing. The course covers 3 years. An examn. in all the subjects of the course must be passed and a satisfactory thesis presented. Persons other than graduates may take the examns. and receive certifs. In addition to the degree course the Faculty

provides a Prelim. course for candidates for the Ministry and a 3 years course for probationers.

LAW. Grads. in Arts who attended during the B.A. course classes in Law subjects and have passed their examns. as required by the Law Faculty of Dalhousie Coll. can graduate in the Law School of that Coll. in 2 years from entrance.

ENGINEERING. The Univ. provides a 2 years course, the successful completion of which gives entrance to the 3rd year of the Applied Science course of McGill Univ. and N.S. Tech. Coll. For admission to it a student must pass a Matricn. examn. equal to the Junior Matricn. in Arts. A student may take this 2 years course as part of his 3rd and 4th years course in Arts [*v. also* Appendix VI (ii)].

MUSIC. A 3 years course of study for the Mus.Bac. has been prescribed and the Univ. provides the requisite instruction in Engl., French, German, and Phys., instruction in professional subjects being obtainable in Mt. Allison Ladies' Coll. Hitherto, however, there have been no candidates for the Mus.Bac.

WOMEN are admitted to all courses and degrees (except in Theol.) and to all competitions for prizes and Honours on the same terms as men.

RESIDENTIAL FACILITIES. The College residences have accommodation for 130 men and 60 women students.

ADVANCED STUDIES. Graduates desiring to pursue special studies generally go to Harvard.

LIBRARY. About 12,000 vols.

WORKSHOPS equipped with gasolene engine, &c., have been provided for Engin. students.

PUBLICATIONS. The *Calendar*, issued in July.

THE YEAR 1912–13

BENEFACTIONS. About $200,000 has been subscribed towards an increased endowment.

NEW DEPARTMENTS, &c. A course for the degree of Mus.B. has been arranged.

NUMBER OF STUDENTS. Full-time students preparing for the Bachelorship or Diploma, 180 (including 43 women); occasional or special students, 56 (39 women); resident Bachelor students preparing

for the M.A. degree, 3 (1 woman) ; students in Europe, 2 ; in American Colls., 5.

HONORARY DEGREES conferred during the year. *D.D.*—A. M. Sanford, M.A., B.D., President of Columbia Coll., B.C. *LL.D.*—S. D. Scott, M.A., Vancouver, B.C. ; Jas. M. Palmer, M.A., Principal, Mt. All. Academy ; R. P. Bowles, M.A., D.D., President of Victoria Coll., Tor.

OTHER DEGREES. M.A., 1 ; B.A., 26 (including 15 women).

LEGISLATION. The name of the Corporation was changed to "The Regents of Mt. Allison."

UNIVERSITY OF NEW BRUNSWICK, FREDERICTON

[Founded and incorporated by Royal Charter in 1828 as King's Coll., Fredericton. Reorganized by amended Charter in 1860.]

VISITOR ON BEHALF OF H.M. THE KING	The LIEUT.-GOVR. OF NEW BRUNSWICK.
CHANCELLOR	C. C. JONES, M.A., Ph.D., LL.D., Chairman of the Faculty.
PRESIDENT OF THE SENATE	W. S. CARTER, M.A., LL.D.
REGISTRAR	HAVELOCK COY, M.A.

PROFESSORS, LECTURERS, ETC.

CHEMISTRY [Prof.
CAMERON, A., M.A., B.SC. ST. AND.

ENGINEERING (v. also *Physics*)
Civil Engineering
STILES, J. A., B.A.SC. TOR. Prof.
Mech. E. and Drawing
STEPHENS, J., M.A., M.A.I. DUB., M.I.C.E.I. Prof.

FORESTRY
MILLER, R. B., M.A. WAB., M.F. YALE Prof.

LANGUAGES and History
Classics and Anc. Hist. [Prof.
RAYMOND, W. T., B.A., B.A. HARV.
English and Mod. Hist.
MACDONALD, W. L., B.A. TOR., M.A. WISC., PH.D. HARV. Prof.
French and German
UPPVALL, A. J., B.A. COLBY, M.A. HARV. Prof.

LAW
Contracts and Const. Hist.
PHINNEY, J. D., B.A., K.C. Lectr.
Torts and Crimes
HUGHES, P. J., B.A. Lectr.

MATHEMATICS
JONES, C. C., PH.D., B.A. HARV., LL.D. TOR. Prof.

NATURAL HISTORY and Geol.
COX, P., B.SC., PH.D. Prof.

PHILOSOPHY and Economics
KIERSTEAD, W. C., PH.D. CHIC., M.A. Prof.

PHYSICS and Elec. Engin.
MCGINNIS, C. S., S.B. MASS. INST. TECH., PH.D. PENN. Prof.

CHANGES IN STAFF

Cameron, A., appointed *vice* Carson.
Carson, C. M., Ph.D., Prof. of Chem., resigned.
MacDonald, W. L., apptd. *vice* Gordon.
Gordon, R. K., M.A. Tor., Prof. of Engl. and Mod. Hist., resigned.

GENERAL INFORMATION

The Chancellor and a majority of the Senate (the Governing Body) are appointed by the Lieut.-Govr. in Council. The Provincial Chief Supt. of Education is *ex-officio* President of the Senate. The proceedings of the Senate so far as they affect the finances of the Univ. or removal of officers are subject to the approval of the Lieut.-Govr. An annual grant of $20,000 is received from Provincial revenues.

DEPARTMENTS. There are an Arts Dept. and a Dept. of Applied Science including Engin. (Civil and Elec.) and Forestry.

TERMS, 1913–14. Michs. term begins Sept. 18; Easter ends May 14.

DEGREES, &c. B.A., M.A.; B.Sc., M.Sc., D.Sc.; B.C.L., D.C.L., LL.D. Diplomas for special courses.

COURSES AND EXAMINATIONS. The Degree courses in Arts, Science, and Applied Science cover 4 years, starting from Matricn., but the B.A. and B.Sc. may be taken in 3 years by a candidate who passes the Senior Matricn. examn. at entrance. Also teachers holding Provincial Grammar School licences may be admitted to the 2nd year of the B.A. or B.Sc. course without examn., and those holding a 1st class licence may be admitted on passing in Latin and Greek or French and Botany. Latin is a compulsory subject of the ordinary Matricn. examn. Candidates for Diplomas for special courses must pass an examn. in the same subjects as are prescribed for those entering for degrees, omitting Greek and Latin.

ARTS. Attendance at lectures and the passing of terminal or supplemental examns. are ordinarily insisted on as conditions precedent to qualifying for the B.A. or B.Sc., but the Faculty may in consideration of peculiar circumstances dispense with attendance at lectures for brief periods. Compulsory subjects for the B.A. examn. are Maths., Latin, Engl. Lit., Bot., Chem., Ancient Hist., Philos., Greek *or* French *or* German. The M.A. degree may be taken 2 years after graduating as B.A. on proof of advanced study in one of the Honours Depts. *or* Engl. and Hist. *or* Econ. and Hist. A thesis must be presented and an examn. must be passed. Compulsory subjects for the B.Sc. examn. are Maths., Engl. Lit., French *or* German, Philos., Dynamics, Bot., Zool., Chem., Phys., Anat., Calculus, Pol. Econ. There are Honour courses in the 3rd and 4th years in Latin and Greek, Maths. and Math. Phys., Exper. Phys. and Chem., Nat. Sc. and Chem., Philos. and Econ., Philos. and Engl., Engl. and either French or German, Econ. and Engl.

LAW. Graduates in Arts of N. Bruns. who took 4 Law courses in their 3rd and 4th years may graduate in Law at the Law Schools of Dalhousie Univ. and King's Coll., St. John, N.B., in 2 years. The

B.C.L. cannot be taken until the 7th year after taking the B.A. The D.C.L. may be taken in the 6th year after the B.C.L. The LL.D. is Honorary.

APPLIED SCIENCE. For admission to the Degree courses there is a "Junior Entrance" examn. By passing a "Senior Entrance" examn. a student may gain admission to the 2nd year, but must complete the drawing work of the 1st year before the Final examns. of the 2nd. The first 2 years of the course in *Engineering* have been especially arranged to suit candidates for licences as Deputy Provincial Land Surveyors. The first 2 years of the *Forestry* course are the same as those of the Engin. course except that Forest Bot. is substituted for spherical Trigonometry and Geom. Conics. Attendance at lectures and Field Camp are necessary conditions precedent to admission to the Final examns. for degrees. Theses must be prepared by Engin. students during each of the summer vacations of the first 3 years and prior to graduation. The Civil Engin. and Forestry courses may be combined in 5 years. The M.Sc. may be taken 3 years after the B.Sc. in Engin. or Forestry on proof of employment for 3 years in Engin. or Forestry work and presentation of a satisfactory thesis.

WOMEN are admitted to all the courses and degrees on the same terms as men.

RESIDENTIAL FACILITIES. There is no Hall of Residence, and no control over lodgings occupied by students is attempted.

ADVANCED STUDIES. Graduates desiring to take up advanced studies generally go to Harvard, Chicago, or Columbia.

LIBRARY. 9000 vols.

MUSEUMS. Natural History, &c.

LABORATORIES. There are Bot., Chem., Mineral., Phys., Elec. Engin., Cement and Testing Labs.; a machine shop containing a 3 b.h.p. gasolene engine; and a Psych. Lab. with measuring apparatus.

There is also an OBSERVATORY containing a telescope of 6″ clear aperture and meteor. instruments.

PUBLICATIONS. The *Calendar*, issued in Jan.

THE YEAR 1912–13. The grant from Provincial revenues was increased from $17,000 to $20,000; a donation of $500 for Library purposes was received. *Number of Students* preparing for Bachelor's degree, 154 (including 26 women); for Master's degree, 10 (5 women). *Honorary Degrees* conferred: LL.D., 3. *Other Degrees:* M.A., 3 (including 1 woman); B.A., 17 (8 women); M.Sc. in Civ. Engin., 1; B.Sc. in Civ. Engin., 16; Elec. Engin., 3; Forestry, 3.

UNIVERSITY OF NEW ZEALAND

[Established by Act of the N.Z. Legislature, 1870; Constitution modified by several enactments which were consolidated in the N.Z. Univ. Act, 1908.]

VISITOR	H.E. THE GOVERNOR.
CHANCELLOR	Sir ROBERT STOUT, K.C.M.G. LL.D.
VICE-CHANCELLOR	Sir CHARLES C. BOWEN, Kt.
REGISTRAR	BARCLAY HECTOR, Wellington.
AGENT IN ENGLAND	J. W. JOYNT, M.A. Dub., 76 Gower Street, London, W.C.

The University is an examining body with 4 affiliated Colleges: University of Otago, Dunedin; Canterbury College, Christchurch; Auckland University College; Victoria College, Wellington.

The Univ., as such, has no fixed home or buildings. Its official home is in Wellington, as the most convenient centre.

The GOVERNMENT of the Univ., as distinct from the Colls., is vested in the Senate. Four members (or Fellows) of the Senate are nominated by the Governor. The remaining 20 are elected as follows: 8 by the governing bodies of the Colls., 8 by graduates, and 4 by the teaching staffs of the Colls. When the Senate is in recess the executive authority is vested in the Chancellor, or, in his absence, the Vice-Chancellor. These officers are elected by the Senate and preside at meetings of the Senate. Proposals are at present under consideration for establishing a closer constitutional union between the Univ. and the Colls.

For MATRICULATION 13 subjects are prescribed, of which 6 may be presented and 5, including Engl., Maths., and one Class. or Mod. Lang., are necessary for a pass. A candidate who does not pass in Latin or Greek must pass in Physical or Natural or Agric. Science, and no candidate can take more than one of these Sciences; in the syllabus prominence is given to their practical aspect.

TERMS. Statutes provide that any student matriculated to the Univ. whose name is on the books of an affiliated Coll. and who has attended the lectures and passed its annual examn. shall be deemed to have kept the terms of the year; provided that in the case of his presenting himself for a Univ. examn. he must have passed the Coll. examn. in the subjects he offers at the corresponding stage. The passing of the annual examn. is not required of students who are

qualifying themselves for the degree of M.B., B.D.S., B.V.Sc., B.Agr., or for any of the branches of the degree of B.E. But such students must have attended the classes and passed the examns. prescribed in their Coll. course, to the satisfaction of their teachers.

"Any student who, being resident more than 10 miles from an Affiliated Coll. or being engaged in acquiring a profession or trade or earning a livelihood, is thereby prevented in the opinion of the Professorial Board of such Coll. from attending lectures or who objects on grounds of religious scruples . . . shall, so far as it is shown to be necessary, be exempted from attendance at lectures as a condition of keeping terms while qualifying himself for the degree of B.A. or for the ordinary degree of B.Sc. or for the degree of LL.B. or B.Com.; but a student entitled to exemption from attendance at lectures under this Statute must have his name on the books of an Affiliated Coll. and must pass its annual examn. in order to keep the terms of the year" (Statutes, Ch. VII).

Degrees, Diplomas, &c. Arts—B.A., M.A., Litt.D.; Science—B.Sc., M.Sc., D.Sc., B.Sc. in Architecture, B.Sc. in Home Science; Law—LL.B., LL.M., LL.D.; Medicine—M.B., Ch.B., M.D.; Dentistry—B.D.S., M.D.S.; Vet. Science—B.Vet.Sc.; Public Health—Diploma; Music—B.Mus., D.Mus.; Engineering—B.E. (Mech., Elec., Civ., Min., Metall.); Agriculture—B.Agr.; Commerce—B.Com.; Journalism—Diploma. The Univ. has no statutory power to confer Hon. Degrees. The Degrees of Bachelor and Master in Arts and Bachelor and Doctor in Science, Law, Med., and Music have been declared by Royal Charter to be entitled to rank, precedence, and consideration as if granted by any Univ. of the U.K.

The normal period of the B.A. and B.Sc. courses is 3 yrs. each. Provision is made in detail for proceeding from an Arts to a Science Degree, or *vice versa*. Theoretically every student presenting himself for a Degree examn. is required to have kept full terms at one of the Affiliated Colls.; but exemption may be obtained as explained above (*v.* "Terms").

No student is allowed to present himself for examn. in any branch of Phys. Science or of Nat. Science or of Chem., either at the annual examn. of an affiliated Coll. or at any Degree examn. prescribed by the Univ., unless subsequently to matricn. he has both attended the regular course of instruction in the subject at the Coll. to which he is attached and gone through a prescribed course of practical work in the subject.

The normal duration of the professional and technical courses is as follows: Law, 4 yrs.; Med., 5 yrs.; Dent., 4 yrs.; Vet. Sc., 3 yrs.; Music, 3 yrs.; Archit., 4 yrs., with 18 mos. practical work; Home Science, 3 yrs.; Engin., 4 yrs., with practical work in shops, mines, or surveying, varying from 9 to 18 mos.; Agric., 3 yrs., with practical farm work; Commerce, 4 yrs. No student for a degree is allowed to enter on one of the professional or technical courses unless he has first been matriculated. The 1st yr. for most of the Professional Degrees may be taken at any of the Univ. Colls.

Honours are awarded in Arts, Science, and Law, not concurrently

with the Bachelor degree in these faculties, but on a subsequent examn. held within 1 yr. afterwards in the case of Arts and Science, or 2 yrs. in the case of Law. These examns. are identical also for the Master's degree in these faculties respectively. For the Doctorate in these 3 faculties the prelim. requirements are the Master's degree and an interval of 5 yrs. since graduation as Bachelor. The additional qualification is an original work. In Med. and Music the Doctorate is awarded partly on examn., partly on original composition or thesis.

For the B.A. degree a pass in 6 subjects is required, 1 of which must be Latin or Greek. For the B.Sc. degree a pass in 6 subjects is required, including Maths., Phys., Chem., and Bot. or Zool. or Geol. or Physiol. Each examn. may be passed in 2 sections; and in the final section a candidate may, in lieu of a 6th subject, repeat on a higher standard a subject already passed in the 1st section. Educn. and Milit. Science are among the optional subjects for B.A., the latter also for B.Sc.

Professional or Technical Schools. The teaching for each Professional or Technical Degree is carried on at some one or more of the Affiliated Colls., viz. Med. and Dent. at the Univ. of Otago; Mech., Elec., and Civ. Engin. at Canterbury Coll.; Mining and Metall. Engin. at Auckland and Otago. In addition, Lincoln Coll. is a recognized School of Agric. Subjects for the Law degree are taught at all the Colls.; but the chief Law School is Vict. Coll., Wellington. Subjects for the Comm. degree are taught mainly at Auckland and Canterbury; and these two Colls. are also the seats of Music Schools. Home Science is taught at Otago and Archit. at Canterbury.

Training Colleges for Teachers. In each town which has a Univ. Coll. there is a Training Coll. for Teachers, and the Director of the Training Coll. is Prof. of Educn. in the local Univ. Coll. In this way solidarity is maintained between the theoretical and practical sides of teaching.

"Ad Eundem" Recognition. Courses completed, or partially completed, at any British Chartered Univ. are accepted by the Univ. of N.Z. *ad eundem*. Applications from other Univs. for *ad eundem* recognition are considered on their merits.

Scholarships for Graduates. Concurrently with the B.A. and B.Sc. examns. is held an examn. for Senior Scholarships. A separate scholarship is awarded on almost every subject of the B.A. or B.Sc. syllabus, and the value of each is £60 p.a. There are also Travelling Scholarships in Engineering and in Medicine of £100 and of £150 respectively, and a Senior Scholarship in Law. There is an annual election to a Rhodes Scholarship and to an 1851 Exhibn. Research Scholarship. For the encouragement of study and research by grads. the Univ. offers Certifs. and Gold Medals.

Two first-class return passages between Australia and England are offered yearly by the Orient Co. for grads. of the Univ. proceeding to Europe to continue their studies. The Union S.S. Co. and Huddart

Parker Co. supplement this by a similar concession between N.Z. and Australia.

Admission of Women. A feature of the N.Z. Univ. system has been that from the beginning no difference has been made between the sexes either by the Univ. or the Colls.

Residence. None of the Affiliated Colls. have any residential buildings, but all of them, to a greater or less extent, are doing something in the direction of establishing residential hostels, for men and women students separately. But considerable numbers of students live in lodgings over which the Colls. exercise no direct control.

Publications. The *Calendar*, pubd. June 1, price 2s. 6d.; *Minutes of Prodgs. of Senate*, free; *Examn. Papers*, bound in sets according to Faculty or Dept., 6d. or 1s. a set; *Reports of Examiners* (in England and N.Z.), free; *Syllabus and Regns. of various Depts.*, extracted from *Calendar*, price according to size. Many Researches pubd. under the auspices of the N.Z. Inst. are the work of Univ. Profs., and in this way the publications of the Inst. partly compensate for the absence of a Univ. Press.

Recognized Schools. In addition to the several professional Schools of the Affiliated Colls., the Canterbury Agric. Coll., Lincoln, which is not affiliated, is recognized as a School of Agric.

Number of Degrees obtained in 1912 by students of the Univ. Colls. By men—B.A., 35; M.A., 26; B.Sc., 10; M.Sc., 6; D.Sc., 1; LL.B., 22; LL.M., 1; M.B., Ch.B., 10; M.D., 2; B.D.S., 2; B.Com., 1. By women—B.A., 21; M.A., 13; B.Sc., 1. The total number of grads. admitted up to May 20, 1913, is 1756 (including 503 women).

AFFILIATED INSTITUTIONS

UNIVERSITY OF OTAGO, DUNEDIN

[Founded by Ordinance of the Provincial Council, 1869. Opened, 1871. Affiliated to the Univ. of N.Z. under agreement made in 1874. Constitution altered 1911.]

Visitor	H.E. The Governor.
Chancellor	Andrew Cameron, B.A. N.Z.
Vice-Chancellor	J. Roberts, C.M.G.
Registrar and Librarian	H. Chapman, B.A.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY
REID, G. W., B.COM. N.Z. Lectr.

ANATOMY [Prof.
SCOTT, J. H., M.D., C.M. EDIN., M.R.C.S. ENG., F.R.S. EDIN.

BIOLOGY
BENHAM, W. B., M.A. OX., D.SC. LOND., F.Z.S., F.R.S. Prof.

CHEMISTRY (v. also *Home Sc., Metall.*)
INGLIS, J. K. H., M.A., B.SC. N.Z., D.SC. EDIN., F.I.C. Prof.

CLASSICS (v. also *Langs.*)
SALE, G. S., M.A. CAMB. Em. Prof.

DENTISTRY
PICKERILL, H. P., M.B., CH.B., M.D.S., L.D.S., R.C.S. ENG. Prof.

ECONOMICS (v. also *Home Sc.*)
BEDFORD, H. D., M.A., LL.M. N.Z. Lectr.

EDUCATION
VACANT Prof.

ENGINEERING, v. *Mining*

GEOLOGY and Mineralogy
MARSHALL, P., M.A., D.SC. N.Z., F.G.S., F.R.G.S. Prof.

HOME SCIENCE and Domestic Arts
BOYS-SMITH, WINIFRED L., GIRTON COLL. CAMB. Prof.
Economics, Chem., &c.
RAWSON, G. HELEN Lectr.

HYGIENE, v. *Med.—Bact.*

LANGUAGES and Literature
English Lang. and Lit.
GILRAY, T., M.A. EDIN., HON. LL.D. EDIN., F.R.S. EDIN. Prof.
French
THOMPSON, G. E., M.A. N.Z. Lectr.
German
CAMPBELL, F. H., B.A. N.Z. Lectr.
Greek
DUNBAR, J. Lectr.
Hebrew
WATT, M., M.A., D.D. ABERD. Lectr.
Latin
ADAMS, T. D., M.A. N.Z. Lectr.

LAW, Const. History and
LANG, J., M.A., LL.B. N.Z. Lectr.
Jurisprudence
HAY, W. G., LL.M. N.Z. Lectr.

MATHEMATICS, Pure and Applied
RICHARDS, D. J., M.A. CAMB. Prof.

MEDICINE and Surgery
Bacteriology and Pub. Health
CHAMPTALOUP, S. T., M.B., CH.B. EDIN., B.SC. P.H. Prof.
Clin. Med. and Clin. Surg.
THE HON. STAFF OF THE DUNEDIN HOSPL. Lectrs.
Materia Medica
FITCHETT, F. W. B., M.D., C.M. EDIN. Lectr.
Medical Jurisprudence
OGSTON, F., M.D., C.M. ABERD. Prof.
Medicine, Practice of [Prof.
COLQUHOUN, D., M.D. LOND., F.R.C.P. LOND., M.R.C.S. ENG.
MACDONALD, W. M., M.B., C.M. EDIN. Tutor.
Mental Diseases
KING, F. TRUBY, M.B., C.M. EDIN., B.SC. EDIN. Lectr.
Midwifery and Dis. of Women
RILEY, F. R., F.R.C.S. ENG., L.R.C.P. LOND. Lectr.
Ophthalmology
FERGUSON, H. L., M.A., M.D. DUB., F.R.C.S.I., L.K.Q.C.P.I. Prof.

Pathology

ROBERTS, W. S., M.R.C.S. ENG. Prof.

Surgery [Prof.

BARNETT, L. E., M.B., C.M. EDIN., L.R.C.P. LOND., F.R.C.S. ENG.

NEWLANDS, W., M.A., B.SC. N.Z., M.B., CH.B. EDIN., F.R.C.S. EDIN. Asst. Lectr.

ALLEN, S. C., M.D. N.Z., F.R.C.S. Tutor.

METALLURGY and Assaying

WATERS, D. B., A.O.S.M. Prof.

MINING and Mine and Land Surveying

PARK, J., M.A.I.M.E., M.I.M.M., F.G.S. Prof.

NATURAL PHILOSOPHY

SHAND, J., M.A., LL.D. ABERD., F.P.S., C.M.G. Prof.

Physics [Demr.

HAMILTON, T. B., M.A., B.SC. N.Z.

PHILOSOPHY, Ment. and Moral

SALMOND, W., M.A. EDIN., D.D. EDIN. AND GLAS. Prof.

PHYSIOLOGY [Prof.

MALCOLM, J., M.D., CH.B. EDIN.

PUBLIC HEALTH, v. Med.—Bact.

CHANGES IN STAFF

Barclay, A. R., LL.B. N.Z., Lectr. on Const. Hist. and Law resigned.
Black, J. G., M.A., D.Sc. Edin., Prof. of Chem., resigned.
Inglis, J. K. H., apptd. *vice* Black.
Lang, J., apptd. *vice* Barclay.
White, D. R., M.A. N.Z., Prof. of Educn., resigned.

GENERAL INFORMATION

The Univ. is entirely unconnected with any religious denomination except that the right of nomination to certain Chairs endowed by the Presbyterian Church rests with the Board of Church Property subject to the approval of the Synod.

FACULTIES. Arts, Science, Medicine, and Dentistry. There are also Schools of Mines and of Home Science. The Univ. is recognized by the Univ. of N.Z. as a School of Med. and Dent. and as a School of Mining and Metall. Engin.

TERMS. In Arts and Science lectures begin on the 1st Wed. in April and cease on Fri. following 2nd Wed. in July. They recommence 3 weeks later and continue for 11 weeks. In Med. the winter session commences at beginning of May and terminates at end of Oct. The summer session begins about Jan. 20 and continues for 11 weeks. In Engin. the session begins on the 1st Wed. in April and ends on Fri. following 3rd Wed. in Oct. There is a midwinter vacation of 3 weeks. In Home Science the winter session is as in Engin.; there is a summer session of 10 weeks beginning early in Jan.

ARTS AND SCIENCE. The courses prepare for the Interm. examn. in Med., the Departmental examns. of Schoolmasters, and Degrees, Senr. Scholarships, and Honours in the Faculties of Arts and Science of the Univ. of N.Z.

LAW lectures are given for students preparing for the Law Professional examns.

MEDICINE. A complete course is available for students who do not wish to leave N.Z. This has been recognized by the R.C.P. and S. of Eng. as sufficient. Students desirous of graduating in any Scottish Univ. may pass 2 yrs. of their Med. curriculum here.

DENTISTRY. The courses prepare for the B.D.S. degree.

THE SCHOOL OF MINES, established in 1878, has 4 divisions, the courses in which lead to Diplomas in Mining, Metall., Geol., and Mine and Land Surveying. The lectures also prepare for the degrees of B.Sc. in Mining Engin. and in Metall. Engin. of the Univ. of N.Z.

The LIBRARY contains over 5000 vols.

LABORATORIES. Chem. (for 6 senior and over 30 junior students); Phys. (table accommodation for about 30); Biol. (for 30); Physiol. (for 24).

MUSEUM. Zool. (valuable collection of native birds and fishes and invertebrates and some unique remains of the Moa), Mineral., and Herbarium.

THE YEAR 1912. *Benefactions.* £2000 gift for new class-rooms; £2000 Govt. grant for same purpose. *Degrees obtained* by men—B.A., 11; M.A., 11; B.Sc., 7; M.Sc., 3; D.Sc., 1; LL.B., 4; M.B., Ch.B., 10; M.D., 2; B.D.S., 2. By women—B.A., 12; M.A., 4.

CANTERBURY COLLEGE, CHRISTCHURCH

[Created by Ordinance of the Provincial Council of Canterbury, and affiliated to the Univ. of N.Z., 1873. Reconstituted by an Act of the N.Z. Legislature, 1896, which was amended by Act of 1908.]

VISITOR	THE MINISTER OF EDUCATION.
CHAIRMAN OF BOARD OF GOVERNORS	J. C. ADAMS, B.A.
REGISTRAR	G. H. MASON.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING and Accountancy

MORRISON, J., F.I.A. N.Z. — Lectr.

BIOLOGY

CHILTON, C., M.A., D.SC. N.Z., M.B., C.M. EDIN., F.L.S. — Prof.

ARCHEY, G. E., B.A. N.Z. — Asst.

CHEMISTRY

EVANS, W. P., M.A. N.Z., PH.D. GIES., M.S.C.I. LOND. — Prof.

PAGE, S., B.SC. N.Z. — Demr.

CLASSICS

STEWART, H., M.A. CAMB. — Prof.

CANE, T. W., M.A. N.Z. — Asst.

ECONOMICS and History
HIGHT, J., M.A., LITT.D. N.Z., F.R.E.S. (Dir. of Studies in *Comm.*) Prof.
SHRIMPTON, A. W., M.A. N.Z. Asst.

EDUCATION
FOSTER, T. S., M.A. N.Z. Lectr.

ENGINEERING
SCOTT, R. J., M.I.C.E., M.I.M.E., M.A.I.E.E. Prof.

ENGLISH Lang. & Lit. [Prof.
WALL, A., M.A. LOND., B.A. CAMB.
CANE, T. W., M.A. N.Z. Asst.

GEOLOGY, Palæont., &c.
SPEIGHT, R., M.A., M.SC. N.Z., F.G.S. Prof.

LANGUAGES, Modern
BLUNT, T. G. R., M.A. OX. Prof.

LAW, Jurisprudence and [Lectr.
MURPHY, T. A., M.A., LL.B. N.Z.
ROWE, T. W., M.A., LL.B. N.Z. Asst. Lectr.

MATHEMATICS and Nat. Philos.
GABBATT, J. P., M.A. CAMB., M.SC. MANC. AND LIV. Prof.
DARWIN, L. J., M.A. ADEL. Asst.

MENTAL SCIENCE
SALMOND, C. F., M.A. N.Z. Lectr.

MUSIC [Lectr.
BRADSHAW, J. C., MUS.D. MANC., F.R.C.O., L.R.A.M., A.R.C.M.

PHYSICS [Prof.
FARR, C. C., D.SC. ADEL., A.M.I.C.E.
MACLEOD, D. B., M.A., B.SC. N.Z. Demr.

CHANGES IN STAFF

H. Stewart succeeded F. W. Haslam as Prof. of Classics.

GENERAL INFORMATION

TERMS, 1914. First term begins March 14, ends June 19; second begins July 18, ends Nov. 1. In the Faculty of Music there are 3 terms.

[Full COURSES are provided for Honours and Scholarships and for ordinary degrees in Arts, Science, Music, Commerce, and Engineering, as required by the Univ., and special courses in Engin. and Commerce leading to the Coll. Certif. of Assoc. of the School of Engin. (a 4 yrs. course for Elec. Engin. and 3 yrs. for Civ. and Mech.) and to the Coll. Interm. Certif. of Comm. (2 yrs. course). Evening courses in Mech. and Elec. Engin. are given, including a course qualifying for the 3rd Marine Engr.'s Certif. The Coll. is recognized by the Univ. as a School of Civ., Elec., and Mech. Engin.

The Coll. has the control of a Museum—*Curator*, E. R. Waite, F.L.S.; Library—*Librarian*, E. J. Bell; School of Art—*Director*, R. Herdman-Smith, F.S.A.M., A.R.C.A. Lond.; and High Schools for Boys and Girls.

[PUBLICATIONS. The *Calendar* and *Chairman's Annual Report*.

THE YEAR 1912. *Benefactions received.* Subscriptions amounting to £1500 for a Coll. Library. *Number of Students:* Matriculated, 296

(including 125 women); not matriculated, 66 (29 women). *Degrees obtained:* M.A., 8 (including 1 woman); B.A., 7 (1 woman); M.Sc., 1; LL.B., 5; B.Com., 1.

AUCKLAND UNIVERSITY COLLEGE

[Established by Act of the N.Z. Legislature, 1882. Affiliated to the Univ. of N.Z. and opened 1883. Constitution altered by A.U.C. Amendment Act, 1912.]

VISITOR	THE MINISTER OF EDUCATION.
CHAIRMAN OF COUNCIL	Hon. Sir GEORGE M. O'RORKE, M.A., Hon. LL.D.
REGISTRAR AND LIBRARIAN	C. M. NELSON, M.A. Camb.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING

HEMINGWAY, W. H., F.P.A. N.Z., F.N.Z.A.A. Lectr.

BIOLOGY and Geology

THOMAS, A. P. W., M.A. OX., F.L.S., F.G.S. Prof.

LANCASTER, T. L. Demr.

CHEMISTRY & Exper. Physics

BROWN, F. D., HON. M.A. OX., B.SC. LOND., F.C.S. Prof.

MORGAN, H. H., B.SC. LOND., F.C.S., A.R.C.SC. LOND. Demr.

CLASSICS

DETTMANN, H. S., B.A. SYD., M.A., B.C.L. OX., HON. M.A. ADEL. [Prof.

ECONOMICS, Ment. Sc., Hist., &c.

GROSSMANN, J. P., M.A. N.Z. Lectr.

EDUCATION

MILNES, H. A. E., B.SC. LOND. Lectr.

ENGINEERING

Applied Mechanics, &c.

LAMB, S. E., B.SC. LOND., A.R.C.SC. LOND., A.M.I.M.E. Lectr.

Electrical Engineering

WILSON, W., B.E., M.SC. N.Z., A.M.I.E.E. Lectr.

Mining Engineering

VACANT Prof.

Surveying, Hydraulics, &c.

CORY-WRIGHT, S., B.SC. LOND. Lectr.

ENGLISH

EGERTON, C. W., M.A. DUB. Prof.

ARDERN, P. S., M.A. N.Z., B.A. OX. Asst.

LANGUAGES, Modern

WALKER, M., M.A., B.COM. N.Z. Prof.

LAW

CHALMERS, D. C., LL.M. N.Z. Lectr.

WYMAN, B., LL.B. Asst. Lectr.

ALGIE, R. M., LL.B. Asst. Lectr.

MATHEMATICS

SEGAR, H. W., M.A. CAMB. Prof.

MUSIC

THOMAS, W. E., MUS.D. OX. Prof.

PHYSICS

OWEN, G., M.A. CAMB., D.SC. LIV. Prof.

GENERAL INFORMATION

TERMS, 1914. The first term begins on March 2 and ends on May 10; the second begins on June 1 and ends on Aug. 10; the third begins on Sept. 7 and ends on Nov. 10.

COURSES are provided leading to Senr. Scholarships and Honours and to the Bachelorship of the Univ. in Arts, Science, Law, Music, and Commerce, and part of the B.E. course.

DIPLOMAS AND CERTIFICATES are conferred by the Coll. in Music, in Engin., and in Commerce. The courses provided in these branches qualify also for the 3rd Class Govt. Certif. for Marine Engineers, the Professional examn. for membership of the N.Z. Soc. of Accountants, and other tests. The Coll. is recognized by the Univ. as a School of Mining and Metall. Engin.

PUBLICATIONS. The *Calendar*, price 1s.

THE YEAR 1912. The A.U.C. Amendment Act, 1912, altered the constitution of the Council and provided for the payment to Profs. and Lectrs. of the fees received from students or such part or proportion thereof as may be determined by the Council.

Degrees obtained by men—B.A., 5; M.A., 4; B.Sc., 2; M.Sc., 1; LL.B., 6; LL.M., 1. By women—B.A., 2; M.A., 2.

VICTORIA COLLEGE, WELLINGTON

[Established by Act of the N.Z. Legislature, 1897. Affiliated to the Univ. of N.Z., 1899.]

VISITOR	THE MINISTER OF EDUCATION.
CHAIRMAN OF COUNCIL	CHARLES WILSON.
REGISTRAR	C. P. POWLES.
LIBRARIAN	B. H. WARD, B.A. Lond.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY

BARTON, J. S., F.P.A. N.Z., F.I.A. N.Z. Lectr.

BIOLOGY

KIRK, H. B., M.A. N.Z. Prof.

JENKINS, HARRIETTE M., M.A. N.Z. Demr.

CHEMISTRY

EASTERFIELD, T. H., M.A. CAMB., PH.D. WÜRZ., F.I.C., F.C.S. Prof.

MC DOWALL, J. C. Demr.

CLASSICS [Prof.

BROWN, J. R., M.A. OX. AND ST. AND.

WARD, W. F. (*Comml. Law* Lectr.) Asst.

ECONOMICS, Hist. and Geog.
WILSON, F. P., M.A. N.Z. Lectr.

EDUCATION [Lectr.
TENNANT, J. S., M.A., B.SC. N.Z.

ENGLISH Language and Lit.
MACKENZIE, H., M.A. ST. AND. Prof.
WATSON, ISABEL E. S., M.A. N.Z. Asst.

GEOLOGY
COTTON, C. A., M.SC. N.Z. Lectr.

LANGUAGES, Modern
VON ZEDLITZ, G. W., M.A. OX. Prof.
MACPHAIL, MARGARET M. Asst.

LAW, Roman, Jurispr., &c.
ADAMSON, J., M.A., LL.B. EDIN. Prof.

English and N.Z. Law [Prof.
GARROW, J. M. E., B.A., LL.B. N.Z.

Commercial Law
WARD, W. F., M.A., LL.B. N.Z. Lectr.

MATHEMATICS and Math. Phys.
PICKEN, D. K., M.A. CAMB. AND GLAS. Prof.
TEYCHENNÊ, A. WINNIFRED, M.A. N.Z. Asst.

MENTAL SCIENCE
HUNTER, T. A., M.A., M.SC. N.Z. Prof.

PHYSICS
LABY, T. H., B.A. CAMB. Prof.
STUART, W. A., M.SC. N.Z. Demr.

GENERAL INFORMATION

TERMS. The first begins towards the end of March and the second in the latter half of July. Each lasts about 3 mos.

COURSES are provided leading to Honours, Scholarships, and to the ordinary B.A., B.Sc., LL.B., and B.Com. degrees of the Univ. of N.Z., the Accountants' Professional, N.Z. Soc. of Acctts., and other examns. The Coll. practically specializes in Law, but the early stages in other faculties, such as Med., Dent., Engin., &c., may also be taken.

Degrees obtained in 1912, by men—B.A., 13; M.A., 4; B.Sc., 1; M.Sc., 1; LL.B., 7. By women—B.A., 6; M.A., 6; B.Sc., 1.

UNIVERSITY OF OTTAWA

[Empowered to confer Degrees, 1866.]

APOSTOLIC CHANCELLOR	His Grace the Most Rev. C. H. GAUTHIER, D.D., Archbishop of Ottawa.
RECTOR	A. B. ROY, M.A., D.D.
VICE-RECTOR	W. J. MURPHY.
SECRETARY	J. L. BINET.
BURSAR	A. D. MCGOWAN.
PREFECT OF STUDIES	J. P. FALLON.
PREFECT OF DISCIPLINE	W. J. STANTON.

PROFESSORS

ARTS and PHILOSOPHY

BINET, J. L. *Chem. and Greek.*
BOYER, J. B. *Drawing, Hist., and Comml. Law.*
BOYON, F. (Librarian) *French Lit.*
CAMERON, A. L. *English.*
CORRIGAN, J. A. *Hist. and Geog.*
DUBE, H. *Latin and Maths.*
DUBOIS, P. *French.*
FALLON, J. P. *Engl. Literature.*
FINNEGAN, D. *Engl., Latin, & Hist.*
GILLIGAN, A. *English.*
HAMMERSLEY, P. *Greek, Phys., and Christ. Doct.*
HARRINGTON, P. *Arithmetic.*
JASMIN, A. *Hist. and Philos.*
KELLY, W. *Maths. and Christ. Doct.*
KENNEDY, B. *Greek, Mineralogy, and Civics.*
KENNEDY, J. J. *Engl., Latin, & Hist.*
LAJEUNESSE, J. A. *Latin, French, Geol., Zool., and Bot.*
MARCOTTE, F.-X. *Eccles. Hist. & Phys.*
MC GUIRE, P. J. *Engl., Geol. & Zool.*
MURPHY, M. *Greek, Latin, and Physiol.*
NILLES, N. *Latin.*
NORMANDIN, A. *Greek, Latin, and French.*
O'BRIEN, W. J. *Engl., Arith., & Hist.*
PARADIS, O. *French, Hist., and Christ. Doct.*
PELLETIER, A. *Greek and French.*
PERRUISSET, L. *Philos. and Christ. Doct.*
QUILTY, S. *English.*
RHEAUME, L. *Higher Maths., French, and Astron.*
SHEA, J. A. *Engl., Hist., and Drawing.*
SHERRY, J. H. *Greek, Engl., & Hist.*
STANTON, W. *Latin.*
TURCOTTE, E. *Latin & Christ. Doct.*
VERONNEAU, A. *Latin, Maths., and French.*
VILLENEUVE, R. *Philos.*
VOYER, O. *Hist., French, and Christ. Doct.*

THEOLOGICAL COURSE

BLANCHIN, F. *Dogmatic Theol.*
DUCHAUSSOIS, P. J. *Sacred Eloquence.*
DUVIC, J. *Moral Theol. and Canon Law.*
ESTEVE, AUG. *Dogmatic Theol. and Eccles. Hist.*
JODOIN, J. V. *Liturgy.*
JOYAL, A. *Holy Scripture.*

RHEAUME, L. *Moral Theol.*, Director of the Seminary.
VERRAULT, G. *Eccles. Hist.*

COMMERCIAL COURSE

LATULIPE, E. A. *Book-keeping and Business Class.*
LEGAULT, R. *Book-keeping and Business Class*, Prefect of Studies.
O'BRIEN, L. D. *Penmanship.*
PEPIN, E. *Typewriting.*
SENECAL, R. *Stenog. and Book-keeping.*

GENERAL INFORMATION

This is a Catholic Univ. conducted by the Oblate Fathers of Mary Immaculate, who control and supervise closely the studies and other activities of the resident students. A special feature of the system of instruction is that marks are assigned for the exercises of the students, and these are read once a month publicly. The Prefect of Studies also sends monthly reports to parents. As indications of the strictness of control the following rule may be cited: No book or newspaper shall be introduced without having been previously examined and approved of by the Prefect of Discipline.

TERMS. The first begins on the first Wed. of Sept. (3.9.13); the second on Jan. 7, 1914; and the third on April 14.

FACULTIES AND DEPARTMENTS. There are faculties of Arts, Philos., and Theol., and Collegiate (preparatory to Matricn.) Business and Preparatory courses.

DEGREES, &c. B.A., M.A., Bachelor of Literature (B.L.), B.Phil., B.Th., D.Th., LL.D. (Honorary), Licentiate of Philos. and Licentiate of Div.; Commercial Diploma. The degree of B.A., which the Univ. confers in virtue of its Univ. Charter, besides being an honourable testimonial of high and varied attainments, entitles those who study law to exemption from Prelim. examns. and to a reduction of 2 years from the ordinary course of 5 years. This degree also exempts those who study Medicine from Preliminary examns. The Arts course covers 4 years, leading to the B.A. or B.L. Extra-mural students may appear for examn. without attending classes in the Univ. Candidates for the M.A. must be Bachelors of at least 2 years standing and present theses. The B.Phil. may be taken after the 3rd year of the Univ. course, the Licentiate at the end of the 4th, and the Doctorate a year later. The course of study is the same as that of the 3rd and 4th years in Arts. The B.Th. may be taken after the 2nd year, the Licentiate of Theol. after the 3rd, and D.D. 3 years later. The Univ. Classical course may be taken either in English or in French. In the Engl. course the language of instruction and translation is English, and out of 20 hours a week 3 only are given to French. In the French course Latin, Greek, French, and Hist. are taught in French. The Business course is of 2 years duration.

RESIDENTIAL FACILITIES. Accommodation is provided in the Univ. buildings, and students whose homes are not in Ottawa are

required to live in these buildings. They may remain in them during the Christmas holidays without extra charge.

LIBRARY, 25,000 vols.; Profs. and students have access to the Parliament Library containing 300,000 vols.

MUSEUMS, &c. Geol. Mus. in the Univ. Access to that of the Geol. Survey has been granted by Govt. The Univ. has Chem., Phys., and Mineral. Labs. The Canadian Fisheries Mus. of the Dept. of Marine and Fisheries and the Dominion Observatory are located in Ottawa.

PUBLICATIONS. The *Calendar*.

THE YEAR 1912–13. *Number of Students* preparing for the Bachelorship in Arts—Engl. 76, French 26; Philos., 21; Theol., 57; for Commercial Diploma, 28; for M.A., 4. *Honorary Degrees Conferred: LL.D.*—The Hon. Speaker of the Canadian Senate; T. C. Carrigan, Dean of the Faculty of Law, Cath. U.A. *Other Degrees:* B.Th., 2; Lic.Phil., 10; B.Phil., 13; M.A., 2; B.A., 6. *Additions to Buildings.* A wing 200 feet long.

UNIVERSITY OF OXFORD

[Constitution defined by Ox. Univ. Act 1854 and Univs. of Ox. and Camb. Act 1877. Prior to the reforms introduced under the Act of 1854 the Univ. was governed under the Laudian Statutes of 1636.]

Chancellor	George Nathaniel, Earl Curzon of Kedleston, D.C.L. All Souls.
High Steward	Hardinge Stanley, Earl of Halsbury, M.A., Hon. D.C.L. Merton.
Vice-Chancellor	T. B. Strong, D.D., Dean of Christ Church.
Representatives in Parliament (Burgesses of the University)	Rt. Hon. Sir William R. Anson, Bart., D.C.L., Warden of All Souls. Lord Hugh R. H. Cecil, M.A. Hertford, LL.D.
Proctors	A. S. L. Farquharson, M.A. Univ. J. L. Stocks, M.A. St. John's.
Assessor of the Chancellor's Court	Sir E. J. Trevelyan, D.C.L. All Souls.
Public Orator	A. D. Godley, M.A. Magdalen.
Bodley's Librarian	F. Madan, M.A. B.N.C.
Keeper of the Archives	R. L. Poole, M.A. Magdalen.
Registrar	C. Leudesdorf, M.A. Pembroke.
Assistant Registrar and Secretary to the Boards of Faculties	E. S. Craig, M.A. Univ.

COLLEGES

All Souls College	*Warden*	Rt. Hon. Sir W. R. Anson, Bart., D.C.L.
Balliol ,,	*Master*	J. L. Strachan-Davidson, M.A.
Brasenose ,,	*Principal*	C. B. Heberden, M.A., Hon. D.C.L.
Christ Church	*Dean*	T. B. Strong, D.D.
Corpus Christi College	*President*	T. Case, M.A.
Exeter ,,	*Rector*	L. R. Farnell, D.Litt.*

* Elected 1913 *vice* W. W. Jackson, D.D., resigned.

Hertford College	*Principal*	H. Boyd, D.D.
Jesus ,,	,,	Rt. Hon. Sir John Rhŷs, M.A., D.Litt.
Lincoln ,,	*Rector*	W. W. Merry, D.D.
Magdalen ,,	*President*	T. H. Warren, M.A., Hon. D.C.L.
Merton ,,	*Warden*	T. Bowman, M.A.
New ,,	,,	W. A. Spooner, D.D.
Oriel ,,	*Provost*	C. L. Shadwell, D.C.L.
Pembroke ,,	*Master*	Rt. Rev. J. Mitchinson, D.C.L.
Queen's ,,	*Provost*	J. R. Magrath, D.D.
St. John's ,,	*President*	H. A. James, D.D.
Trinity ,,	,,	H. E. D. Blakiston, D.D.
University ,,	*Master*	R. W. Macan, M.A., D.Litt.
Wadham ,,	*Warden*	J. Wells, M.A.*
Worcester ,,	*Provost*	C. H. O. Daniel, D.D.
St. Edmund Hall	*Principal*	H. H. Williams, M.A.†
Keble College (New Foundation)	*Warden*	W. Lock, D.D.

Censor of Non-Collegiate Students—R. W. M. Pope, D.D. Worc.

PRIVATE HOSTELS

Marcon's Hall	*Licensed Master*	C. A. Marcon, M.A.
Pope's Hall	,,	J. O'F. Pope, M.A.
Parker's Hall	,,	E. S. A. Parker, M.A.

RECOGNIZED SOCIETIES OF WOMEN STUDENTS

Lady Margaret Hall	*Principal*	Miss H. Jex Blake.
Somerville College	,,	Miss E. Penrose, M.A.
St. Hugh's College	,,	Miss C. A. E. Moberly.
St. Hilda's Hall	,,	Miss Burrows.
Society of Oxford Home Students	,,	Mrs. A. H. Johnson.

Secretary to the Delegates for the Supervision of Women Students: R. W. Jeffery, M.A. B.N.C.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE, v. *Rural Econ.*

ANATOMY [Lee's Reader.

BARCLAY, J., M.A., B.MUS. CH.CH.
Comparative Anatomy

BOURNE, G. C., M.A., D.SC. MERT. Linacre Prof.

GÜNTHER, R. W. T., M.A. MAGD. Lectr.

GOODRICH, E. S., M.A. MERT. Aldrichian Demr.

SMITH, G. W., M.A. NEW Demr.

SPEYER, E. R., B.A. NEW Demr.

* Elected 1913 *vice* P. A. Wright-Henderson, D.D., resigned.
† Appointed 1913 *vice* E. Moore, D.D.

Human Anatomy
THOMSON, A., M.A. EXE. AND B.N.C. Prof.
WHITNALL, S. E., B.M., M.A. MAGD. Demr.
FOSTER, E. C., M.R.C.S. Asst. Demr.
DODDS-PARKER, A. P., B.M., M.A. MAGD. (*Applied Anat.*) Lectr.
Physical Anthropology
BUXTON, L. H. D., B.A. EXE. Demr.

ANTHROPOLOGY, Social
MARETT, R. R., M.A., D.SC. EXE. Reader.

ARCHÆOLOGY (v. also *Class. A.*)
Assyriology [Prof.
SAYCE, A. H., M.A., HON. D.LITT. QU.
BALL, C. J., M.A., D.LITT. QU. Lectr.
LANGDON, S., HON. M.A. JES. Shillito Reader.
Egyptology
GRIFFITH, F. L., M.A. QU. Reader.
Papyrology
HUNT, A. S., M.A., D.LITT. QU. Prof.
Prehistoric Archæol.
EVANS, SIR A. J., D.LITT., M.A. B.N.C. Prof.

ART (v. also *Class. Archæol.*)
Drawing [Ruskin Master.
MACDONALD, A., HON. M.A. WORC.
Fine Art
IMAGE, S., M.A. NEW Slade Prof.

ASTRONOMY [Savilian Prof.
TURNER, H. H., M.A., D.SC. NEW.
RAMBAUT, A. A., M.A. QU. Radcliffe Observer.

BIOLOGY (v. also *Zoology*)
JENKINSON, J. W., M.A., D.SC. EXE. Lectr.

BOTANY [Sherardian Prof.
VINES, S. H., M.A. MAGD.
CHURCH, A. H., M.A., D.SC. JES. Lectr. and Senr. Demr.
HILEY, W. E., M.A. QU. (Investigator in *Forestry*) Demr.

CHEMISTRY [Waynflete Prof.
PERKIN, W. H., M.A. MAGD., PH.D. WÜRZ., M.SC. MANC., SC.D. CAMB., LL.D. EDIN.
FISHER, W. W., M.A. Aldrichian Demr.
MARSH, J. E., M.A. MERT. Demr.
SIDGWICK, N. V., M.A. LINC. ,,
WALDEN, A. F., M.A. NEW ,,
LAMBERT, B., M.A. MERT. ,,
CHATTAWAY, F. D., M.A., D.SC. CH.CH. Demr.
FURNESS, R., B.SC. MANC. Asst.
FARGHER, R. G., B.SC. MANC. ,,

CLASSICAL ARCHÆOLOGY
FARNELL, L. R., M.A., D.LITT. EXE. Lectr.
Class. Archæol. and Art
GARDNER, P., M.A. LINC. Lic. and Mert. Prof.

DIVINITY (v. also *Theol.*)
HOLLAND, H. S., D.D., HON. D.LITT. CH.CH. Reg. Prof.
SANDAY, W., D.D. CH.CH. Margaret Prof.

ECONOMICS, v. *Pol. Econ.*

EDUCATION
KEATINGE, M. W., M.A. EXE. Reader.

EMBRYOLOGY v. *Zool.*

ENGINEERING SCIENCE
JENKIN, C. F., M.A. B.N.C. Prof.
PYE, D. R., M.A. NEW Asst.
HARPER, F. A., B.A. CAMB. Asst.
Surveying
MACKENZIE, N. F., HON. M.A. Instr.

ETHNOLOGY, v. *Anthropol.*

FORESTRY (v. also *Botany, Surveying*) [Prof. and Reader.
SCHLICH, SIR WILLIAM, M.A. ST. J.
TROUP, R. S. Asst.
OSMASTON, B. B. Adviser.
SPEYER, E. R., B.A. NEW Investr.

GEOGRAPHY (v. also *Surveying*)
HERBERTSON, A. J., M.A. WADH. Prof. and Reader.
BECKIT, H. O., M.A. BALL. Asst.
MAC MUNN, NORA E. Demr.
OGILVIE, A. G., B.A. MAGD. Junr. Demr.

GEOLOGY [Prof.
SOLLAS, W. J., M.A. UNIV. AND QU.
VAUGHAN, A., M.A. UNIV. Lectr.
DOUGLAS, J. A., M.A., B.SC. KEB. Demr.

GEOMETRY
ESSON, W., M.A. NEW Savilian Prof.

HISTORY (v. also *Archæol., Pol. Econ., Milit., Theol.*)
Ancient Hist. [Camden Prof.
HAVERFIELD, F. J., M.A. B.N.C.
MYRES, J. L., M.A. NEW Wykeham Prof.
Colonial Hist. [Beit Prof.
EGERTON, H. E., M.A. ALL S.
COUPLAND, R., M.A. TRIN. Beit Lectr.
Diplomatic
POOLE, R. L., M.A. MAGD. Lectr.
English Hist. [Lectr.
LITTLE, A. G., M.A. BALL. Ford's
Foreign Hist. [Chichele Lectr.
BASKERVILLE, G., M.A. KEB.
Indian Hist. [Reader.
HUTTON, VEN. W. H., M.A., B.D. ST.J.
Modern Hist.
FIRTH, C. H., M.A. OR. Reg. Prof.
OMAN, C. W. C., M.A. ALL S. *Chichele Prof.*
U.S.A. Hist. & Institns. [Lectr.
HADLEY, A. T., PRESIDENT OF YALE

LANGUAGES and Literature (v. also *Philol., Phonetics, and Poetry*)
Anglo-Saxon
NAPIER, PROF. A. S. (v. *Engl.*) Rawlinsonian Prof.
Arabic
MARGOLIOUTH, D. S., M.A., D.LITT. NEW Laudian Prof.
SHEIKH MUH. HASANEIN ABDUL-RAZEK Teacher.
Aramaic
STENNING, J. F., M.A. WADH. Lectr.
Bengali
BLUMHARDT, J. F., M.A. Lectr.
Burmese
BRIDGES, J. E., M.A. Lectr.
Celtic
RHŶS, RT. HON. SIR JOHN, M.A., D.LITT. JESUS Jesus Prof.
Chinese
BULLOCK, T. L., M.A. NEW Prof.
English [Goldsmiths' Reader.
SMITH, D. NICHOL, M.A. WORC.
TIDDY, R. J. E., M.A. TRIN. Lectr.
English Lang. and Lit.
NAPIER, A. S., M.A., D.LITT. MERT. Merton Prof.
English Lit.
RALEIGH, SIR WALTER A., M.A. MAGD. Prof.
French [Taylorian Lectr.
BERTHON, H. E., M.A. WADH.
FANNIÈRE, E., LIC.-ÈS-L. ,,
WATERS, C. G. R., B.A. KEBLE ,,
German
WILLOUGHBY, L. A., M.A. LOND., PH.D. VIENNA Taylorian Lectr.
SCHELLENBERG, O. ,,
German Lang. and Lit. [Prof.
FIEDLER, H. G., M.A. QU. Taylorian
Greek
MURRAY, G. G. A., M.A., D.LITT. CH.CH. Reg. Prof.
MENARDOS, S., HON. M.A. (*Late Greek*) Lectr.
TOD, M. N., M.A. OR. (*Epigraphy*) Lectr.
Hebrew [Reg. Prof.
DRIVER, S. R., D.D. CH.CH.
Hindustani
HOEY, W., M.A. JES. Lectr.
Italian [Lectr.
FOLIGNO, C., M.A. QU. Taylorian
Latin
CLARK, A. C., M.A. QU. Corpus Prof.
Marathi
JOPP, C. H. K., M.A. NEW Lectr.

Persian
RANKING, G. S. A., M.A. BALL. Lectr.
Romance Langs. [lorian Prof.
STUDER, P., M.A., D.LIT. LOND. Tay-
Russian
FORBES, N., M.A. BALL. Reader.
Sanskrit [Boden Prof.
MACDONELL, A. A., M.A. BALL.
Scandinavian Langs. [Lectr.
CRAIGIE, W. A., M.A. OR. Taylorian
Spanish
DON. F. DE ARTEAGA Y PEREIRA, M.A. WORC. Taylorian Lectr.
Tamil and Telugu [Lectr.
DON MARTINO DE ZILVA WICKREMASINGHE, HON. M.A. JES.

LAW
Civil Law
GOUDY, H. ,D.C.L. ALL S. Reg. Prof.
Crim. Law and Evidence
TROTTER, V. M. C., M.A. BALL. Lectr.
English Law [Vinerian Prof.
GELDART, W. M., B.C.L., M.A., ALL S.
HOLDSWORTH, W. S., D.C.L. ST. J. All Souls Reader.
Indian Law [Reader.
TREVELYAN, SIR E. J., D.C.L. ALL S.
Internat. Law and Diplomacy
RICHARDS, SIR H. ERLE, K.C.S.I., B.C.L., M.A. ALL S. Chichele Prof.
Internat. Law (Private)
VACANT Lectr.
Jurispr.
VINOGRADOFF, P., M.A., HON. D.C.L. C.C.C. Corpus Prof.
Roman Law [Reader.
DE ZULUETA, F., M.A. NEW All Souls

LOGIC [Prof.
WILSON, J. C., M.A. NEW Wykeham

MATHEMATICS, Pure (v. also *Geom.*) [Waynflete Prof.
ELLIOTT, E. B., M.A. MAGD.

MEDICINE and Surgery
Medicine
OSLER, SIR WILLIAM, BART., D.M., HON. D.SC. CH.CH. Reg. Prof.
COLLIER, W., M.A. EXE. Litchfield Lectr.
Ophthalmology
ADAMS, P. E. H., B.M., M.A. EXE. Margaret Ogilvie's Reader.
Pathology
DREYER, G., M.A. LINC. Prof.
WALKER, E. W. A., D.M. UNIV. Lectr.
GIBSON, A. G., D.M. CH.CH. Demr.
BAZETT, H. C., B.M., M.A. MAGD. ,,
Pharmacology
GUNN, J. A., M.A. QU. Reader.
Surgery
DODDS-PARKER, A. P., B.M., M.A. MAGD. Litchfield Lectr.

MILITARY HISTORY
WILKINSON, H. SPENSER, M.A. ALL S. Chichele Prof.

MINERALOGY [Waynflete Prof.
BOWMAN, H. L., M.A., D.SC. MAGD.
BARKER, T. V., M.A., B.SC. B.N.C. Demr.

MUSIC
PARRATT, SIR WALTER, M.A., D.MUS. MAGD. Prof.
ALLEN, H. P., M.A., D.MUS. NEW Choragus (Asst. to the Prof.).

ORIENTAL Languages, v. *Langs. and Lit.*

PHILOLOGY, Comparative
WRIGHT, J., M.A. EXE. Prof.
Zend Philology
MILLS, L. H., HON. M.A. Prof.

PHILOSOPHY (v. also *Logic*)
Mental Philos. [Wilde Reader.
M'DOUGALL, W., M.A. C.C.C.
Moral and Metaphys. Philos.
SMITH, J. A., M.A. MAGD. Waynflete Prof.
Moral Philos. [Prof.
STEWART, J. A., M.A. C.C.C. White's

PHILOSOPHY, Experimental
CLIFTON, R. B., M.A. MERT. AND WADH. Prof.

WALKER, J., M.A. CH.CH. Demr.
GRIFFITH, I. O., M.A. ST. J. Asst. Demr.
WEBB, F. J., B.A. B.N.C. ,,
MACKIE, J. H., B.A. B.N.C. ,,

PHILOSOPHY, Natural
LOVE, A. E. H., M.A., D.SC. QU. Sedleian Prof.

PHONETICS [Lectr.
JONES, D., M.A. CAMB. Taylorian

PHYSICS [Wykeham Prof.
TOWNSEND, J. S. E., M.A. NEW
BAYNES, R. E., M.A. CH.CH. Lee's Reader.
CRAIG, E. S., M.A. UNIV. Demr.
PIDDUCK, F. B., M.A. QU. Demr.
GILL, W. B., M.A., B.SC. MERT. Demr.
TIZARD, H. T., M.A. OR. Demr.
SMITH, S., B.A. EXE. Demr.

PHYSIOLOGY [Waynflete Prof.
SHERRINGTON, C. S., D.SC. MAGD.
HALDANE, J. S., M.A. NEW Reader.
SCOTT, S. G., B.M., M.A. MAGD. Demr.
RAMSDEN, W., D.M. PEMB. Demr.
VERNON, H. M., D.M. MAGD. Demr.
BURCH, G. J., M.A., D.SC. NON-COLL. Demr.
DOUGLAS, C. G., B.M., M.A., B.SC. ST. J. Demr.

POETRY
WARREN, T. H., M.A., HON. D.C.L. MAGD. Prof.

POLITICAL ECONOMY
EDGEWORTH, F. Y., M.A. ALL S. Drummond Prof.
Economic History
PRICE, L. L., M.A. OR. Reader.

POLITICAL THEORY and Institns. [Gladstone Prof.
ADAMS, W. G. S., M.A. ALL S.

RELIGION, Natural and Comp.
WEBB, C. C. J., M.A. MAGD. Wilde Lectr.

RURAL ECONOMY (v. also. *Forestry*) [Sibthorpian Prof.
SOMERVILLE, W., M.A., D.SC. ST. J.
HARPER, A. G., B.A. MAGD. Demr.
Agric. Chemistry [Addl. Demr.
MORISON, C. G. T., M.A. BALL.
Agric. Economics [of Research.
ORWIN, C. S., M.A., F.S.I. Director

SURVEYING for Engineering, Forestry, and Geog. Students.
MACKENZIE, N. F., HON. M.A. Instr.

THEOLOGY (v. also *Div.* and *Religion*)
Biblical Studies
CHARLES, R. H., M.A., D.LITT. MERT. Speaker's Lectr..
Eccl. Hist [Prof.
WATSON, E. W., D.D. CH.CH. Reg.
Exegesis [Prof.
LOCK, W., D.D. KEB. Dean Ireland's
Interpretation of Holy Script.
COOKE, G. A., D.D. OR. Oriel Prof.
Pastoral Theology [Prof.
OTTLEY, R. L., D.D. CH.CH. Reg.
Septuagint [Grinfield Lectr.
BURNEY, C. F., M.A., D.LITT. ST. J.

ZOOLOGY [Hope Prof.
POULTON, E. B., M.A., D.SC. JES.
Embryology, Comp. and Exper.
JENKINSON, J. W., M.A., D.SC. EXE. Lectr.

CHANGES IN STAFF

Adams, C. F., apptd. Lectr. on Hist., &c., of U.S.A., and resigned.
Adams, P. E. H., apptd. Margaret Oglivie's Reader in Ophth.
Adams, W. G. S., Reader, elected Gladstone Prof. of Pol. Theory and Institns.

Bazett, H. C., apptd. Demr. in Pathol.
Brown, P. Hume, Prof. of Anc. Hist. and Palæog., Edin., apptd. Ford's Lectr. in Engl. Hist., and resigned.
Buxton, L. H. D., apptd. Demr. in Phys. Anthrop.
Collier, W., apptd. Litchfield Lectr. in Med.
Coupland, R., apptd. *vice* Curtis.
Curtis, L. G., M.A. New, Beit Lectr. in Col. Hist., resigned.
Davis, H. W. C., apptd. Chichele Lectr. in Foreign Hist.
Ellis, R., Corpus Prof. of Latin, deceased.
Fargher, R. G., apptd. Asst. in Chem.
Furness, R., apptd. Asst. in Chem.
Gotch, F., Waynflete Prof. of Physiol., deceased.
Harper, A. G., B.A. Magd., apptd. Demr. in Rural Econ.
Harper, F. A., apptd. Asst. in Engin. Science.
Hunt, A. S., Lectr. in Papyrology, apptd. Prof.
Hutton, W. H., apptd. *vice* Owen.
Jones, D., apptd. Taylorian Lectr. in Phonetics.
Mackie, J. H., apptd. Asst. in Exper. Philos.
Owen, S. J., Reader in Indian Hist., deceased.
Perkin, W. H., Prof. of Organic Chem., Manc., elected Waynflete Prof. of Chem.
Schellenberg, O., apptd. Taylorian Lectr. in German.
Sheikh Muh. Hasanein Abdul-Razek apptd. *vice* Sheikh Muh. Ahmad Gad Al-Maula, Teacher of Arabic, resigned.
Sherrington, C. S., Prof. in Liv. Univ., elected *vice* Gotch.
Waters, E. G. R., apptd. Taylorian Lectr. in French.
Webb, F. J., apptd. Asst. Demr. in Exper, Philos.

THE COLLEGES

[Fellows who are Univ. Profs. are not included in the following lists.]

All Souls College. Founded 1437. Warden—Rt. Hon. Sir William R. Anson, Bart., D.C.L.

Fellows: Archibald, J. G., M.A.; Bell, K. N., M.A.; Brand, Hon. R. H., M.A.; Butler, H. B., M.A.; Cholmondeley, F. G., M.A.; Clarke, F., M.A.; Compton, F., D.C.L.; Craster, H. H. E., M.A.; Cruttwell, C. R. M. F., M.A.; Cunliffe, Sir F. H. E., Bart., M.A.; Dearle, N. B., M.A.; Dicey, A. V., M.A., B.C.L., Hon. D.C.L.; Greene, W. A., M.A.; Gwyer, M. L., B.C.L., M.A.; Holland, T. E., D.C.L.; Hulton, A. E. G., M.A., Dean; Johnson, A. H., M.A.; Ker, W. P., M.A.; Lang, Rt. Hon. and Most Rev. C. G., M.A., Hon. D.D.; McDowall, A. S., M.A.; Malcolm, D. O., M.A.; Marsden, G., M.A.; Mowbray, Sir Robert G. C., Bart., M.A.; Pember, F. W., M.A., Estates Bursar; Pollard, A. F., M.A.; Radcliffe, J. D. H., B.C.L., M.A.; Raleigh, Sir Thomas, D.C.L.; Robertson, C. G., M.A., Domestic Bursar; Robinson, G. G., M.A.; Simon, Rt. Hon. Sir John A., M.A., Sub-Warden; Trevelyan, Sir Ernest J., D.C.L.; Williams, A. T. P., M.A.; Young, G. M., M.A.

BALLIOL COLLEGE. Founded 1263–1268. Master—J. L. Strachan-Davidson, M.A.

Fellows: Bailey, C., M.A., *Classical* *, Dean of Examinations and Tutor for Admissions; Davis, H. W. C., M.A., *Classical* *; Gibson, R., M.A., *Classical* *; Hartley, H. B., M.A., *Science* *, Bedford Lectr. in *Phys. Chem.*, and Junior Bursar; Hilliard, E., M.A., * *Law* and Senior Bursar; Lindsay, A. D., M.A., *Classical* * and Jowett Lectr. in *Philos.*; Markby, Sir William, D.C.L.; Newman, W. L., M.A., Hon. D.Litt.; Pickard-Cambridge, A. W., M.A., *Classical* *, Jowett Lectr. in *Greek Lang. and Lit.*; Smith, A. L., M.A., *Modern Hist.* * and Senior Dean; Talbot, N. S., M.A., *Theol.* and *Classical* * and Junior Dean; Toynbee, A. J., B.A., *Classical* *; Urquhart, F. F., M.A., ‡ *Modern Hist.* and Junior Bursar (Domestic).

Other Tutors and Lectrs.: Bourdillon, F. B., B.A., ‡ *Modern Langs.*; Bourdillon, R. B., B.A., ‡ *Chem.*; Gibbon, H. H., M.A., Catechetical ‡; Russell, J. W., M.A., Mert., *Math.* *; Stone, C. G., B.A., *Hist.* ‡.

Director of Music: Walker, E., D.Mus., M.A.

BRASENOSE COLLEGE. Founded 1509. Principal—C. B. Heberden, M.A., Hon. D.C.L. Vice-Principal—F. W. Bussell, D.D., B.Mus., * *Litt. Hum.* and *Modern Hist.*

Fellows: Barker, T. V., M.A., B.Sc.; Butler, A. J., D.Litt., Bursar; Fox, H. F., M.A., * *Classics*; Hutchison, R. H., B.A., ‡ *Classics*; Jenkinson, A. J., M.A., * *Litt. Hum.*; Sampson, C. H., M.A., Senior Tutor *Maths.*; Sonnenschein, W. T. S., M.A., Junior Dean, ‡ *Law*; Stocker, W. N., M.A., ‡ *Nat. Science*; Wace, H. C. M.A., * *Theol. and Classics*; Wakeling, G. H., M.A., Senior Dean, * *Modern Hist.*

Other Lectrs.: Angel, A., M.A., B.Sc., *Chem.*; Grundy, G. B., D.Litt., *Anc. Hist.*; Jeffery, R. W., M.A., Hulme Lectr. in *Modern Hist.*; Vernon, H. M., D.M., *Physiol.*

CHRIST CHURCH. Founded 1546. Dean—T. B. Strong, D.D.

Students (equivalent to Fellows): Anderson, J. G. C., M.A., * *Classics*; Barclay, J., M.A., B.Mus., *; Baynes, R. E., M.A., *; Beazley, J. D., M.A., * *Classics*; Bell, G. K. A., M.A., * *Classics*; Benson, R. M., M.A.; Blunt, H. W., M.A., * *Classics*; Carter, A. T., D.C.L., * *Law*; Chaundy, T. W., B.A., ‡ *Maths.*; Dundas, R. H., M.A., * *Classics*; Feiling, K. G., M.A., * *History*; Fisher, C. D., M.A., Censor, * *Classics*; Hassall, A., M.A., * *Hist.*; Hutchinson, G. T., M.A., Treasurer; Madan, A. C., M.A.; Murray, J., M.A., Censor, * *Classics*; Owen, S. G., M.A., * *Classics*; Payne-Smith, W. H., M.A.; Sampson, E. F., M.A.; Slessor, Capt. A. K., M.A.

Other Lectrs.: Masterman, J. C., B.A.; Rawlinson, A. E. J., M.A.

CORPUS CHRISTI COLLEGE. Founded 1516. President—T. Case, M.A.

Fellows: Grundy, G. B., M.A., D.Litt., *; Hollings, H. de B., M.A., B.C.L.; Jolliffe, A. E., M.A., * ‡ *Maths.*; Little, W., M.A.;

* Tutor. ‡ Lecturer.

Livingstone, R. W., M.A., Asst. Tutor; Mowat, R. B., M.A., Dean and Asst. Tutor; Oddie, J. W., M.A.; Phelps, W., M.A., Vice-President and Asst. Tutor; Plummer, C., M.A.; Schiller, F. C. S., M.A., D.Sc., *; Sidgwick, A., M.A.

Other Lectrs.: Miles, J. C., M.A., Mert., *Jurispr.*; Lambert, B., M.A., Mert., *Nat. Science*.

Bursar: Lightfoot, H. Le B., M.A.

EXETER COLLEGE. Founded 1314. Rector—L. R. Farnell, D.Litt., also *Classical* Lectr.

Fellows: Atkinson, C. T., M.A., ‡ *Modern Hist.*; Balleine, C. F., M.A., *Classical* *, Sub-Rector; Barber, E. A., M.A., * ‡ *Classics*; Cheshire, G. C., B.C.L., M.A., ‡ *Law*; Henderson, B. W., M.A., D.Litt., Senior Tutor, ‡ *Anc. Hist.*; How, A. B., M.A., *Classical* ‡, Bursar; Jenkinson, J. W., M.A., D.Sc., ‡ *Animal Morphology*; Marett, R. R., M.A., D.Sc., * Dean, ‡ *Philos.*; Williams, N. P., M.A., Chaplain Fellow, ‡ *Theol.*

Other Lectrs.: Burney, C. F., M.A., D.Litt., St. J., *Hebrew*; Church, A. H., M.A., Jes., *Bot.*; Griffith, I. O., M.A., St. J., *Maths.*; Marsh, J. E., M.A., Mert., *Chem.*; Stampa, L., M.A., Magd., *Modern Hist.*

HERTFORD COLLEGE. Founded 1874. Principal—H. Boyd, D.D.

Fellows: Bennett, E. N., M.A.; Burroughs, E. A., M.A., * ‡ *Classics*; Campbell, J. E., M.A., Senior Tutor, Junior Bursar, ‡ *Maths.*; Denniston, J. D., M.A., ‡ *Classics*; Gwilliam, G. H., B.D.; Haselfoot, C. E., M.A., * ‡ *Nat. Science*; Hervey, Lord Francis, M.A.; Jackson, C. N., M.A., Senior Bursar; Jeans, C. E., M.A.; Lockhart, J. S., M.A.; Sargent, J. Y., M.A.; Whatley, N., M.A., Dean, ‡ *Anc. Hist.*; Williams, H. H., M.A.

Other Lectrs.: Cruttwell, C. R. M. F., M.A., All S., *Modern Hist.*

JESUS COLLEGE. Founded 1571. Principal—Rt. Hon. Sir John Rhŷs, M.A., D.Litt.

Fellows: Chapman, D. L., M.A., F.R.S., Asst. Tutor, *Chem.*, *Phys.*; de Winton, Ven. F. H., M.A.; Evans, W. F., M.A.; Genner, E. E., M.A., Asst. Tutor, *Latin and Greek Classics* for Hon. Mods.; Griffiths, J., M.A.; Hardy, E. G., M.A., D.Litt., Vice-Principal, * *Litt. Hum.* for Final School; Hazel, A. E. W., M.A., B.C.L., Dean, Asst. Tutor, ‡ *Latin* and *Law*; Hughes, W. H., M.A., * *Latin* and *Greek*, *Pol. Econ.*, Bursar.

Research Fellow: Ellis, R., M.A., Welsh.

Assistant Tutors: Jolliffe, A. E., M.A., *Maths.*; Pickard-Cambridge, W. A., M.A., *Classics* and *Philos.* for Hon. Mods. and School of Litt. Hum.

Other Lectrs.: Atkinson, C. T., M.A., *Mod. Hist.*; Holmes, S., M.A., *Theol.*; Mowat, R. B., M.A., *Mod. Hist.*; Snow, T. C., M.A., *Engl. Lang. and Lit.*; Stenning, J. F., M.A., Wadh., *Oriental Langs.*; Wickremasinghe, M. de Z., Hon. M.A., *Pali* and *Prakrit*; Williams, A. T. P., B.A., All S., *Mod. Hist.*

* Tutor. ‡ Lecturer.

LINCOLN COLLEGE. Founded 1427. Rector - W. W. Merry, D.D.

Fellows: Carlyle, E. I., M.A., * ‡ *Modern Hist.*; Dudden, F. H., D.D., ‡ *Theol.*; Fowler, W. W., M.A.; Marchant, E. C., M.A., *, Sub-Rector, and Domestic Bursar; Moberly, W. H., M.A., ‡ *Philos.*; Munro, J. A. R., M.A., Bursar, ‡ *Anc. Hist.*, Dean of Degrees; Platt, H. E. P., M.A.; Sidgwick, N. V., M.A., ‡ *Nat. Science.*

MAGDALEN COLLEGE. Founded 1458. President—T. H. Warren, M.A., Hon. D.C.L.

Fellows: Baker, G. E., M.A.; Bell, C. F., M.A.; Benecke, P. V. M., M.A., *Classical* *, Home Bursar; Brightman, F. E., M.A., *Theological* *; Carter, C. R., M.A.; Cookson, C., M.A., *Classical* *, Secy. to Tutorial Board; Coolidge, W. A. B., M.A.; Cowley, A. E., M.A., D.Litt.; Fotheringham, J. K., M.A., D.Litt.; Godley, A. D., M.A.; Gordon, G. S., M.A.; Günther, R. W. T., M.A., * *Nat. Science*; Hogarth, D. G., M.A.; Johnston, J. L., M.A., Senior Dean of Arts, *Classical* ‡; Macray, W. D., M.A., Hon. D.Litt.; Mackworth, A. C. P., M.A., **Classics*; Miers, Sir H. A., M.A., D.Sc., F.R.S.; Pedder, A. L., M.A., *Math.* *; Poole, R. L., M.A.; Smith, A. L. F., M.A., Junior Dean of Arts, * *Hist.*; Smith, H. A., M.A., * *Law*; Thompson, J. M., M.A., * Dean of Divinity; Turner, C. H., M.A.; Underhill, G. E., M.A., *Classical* *; Vernon, H. M., D.M., Demr. and Lectr. in *Physiol.*; Webb, C. C. J., M.A., *Classical* *; Wilson, H. A., M.A.

Other Tutors and Lectrs.: Kemshead, C. T. T., M.A., ‡ *Modern Langs.*; Lee, S. G., B.A., ‡ *Hist.*; Manley, J. J., Hon. M.A., Curator of the Daubeny Lab., Demr. in *Chem.*; Moore, T. S., M.A., * *Nat. Science*; Robertson, C. G., M.A., **History*; Wakeling, G. H., M.A., ‡ *History.*

MERTON COLLEGE. Founded 1264. Warden—T. Bowman, M.A.

Fellows: Allen, P. S., M.A.; Bradley, F. H., M.A.; Brook, R., M.A., *Div.* ‡, *Theol.* *; Charles, R. H., M.A., D.Litt.; Dixon, A. L., M.A., F.R.S.,*, Dean; Fyfe, W. H., M.A., Principal of Postmrs., *Class.**; Garrod, H. W., M.A., Sub-Warden, *Class.* *; Gill, W. B., M.A., B.Sc.; Goodrich, E. S., M.A., F.R.S.; How, W. W., M.A., Sen. Tutor, *Class.* and *Anc. Hist.* *; Joachim, H. H., M.A., *Philos.* *; Marsh, J. E., M.A., F.R.S.; Miles, J. C., M.A., *Law* *, Dom. Bursar; Powicke, F. M., M.A.; Watts, J., M.A., Tutor in *Nat. Science.*

Other Lectrs.: Johnson, A. H., M.A., All S., *Modern Hist.*; Watts, J., M.A., Ball., *Nat. Science.*

NEW COLLEGE. Founded 1379. Warden—W. A. Spooner, D.D.

Fellows: Allen, H. P., D.Mus., M.A.; Barker, E., M.A., * *Modern Hist.*; Cheesman, G. L., M.A., ‡ *Anc. Hist.*; Courtney, W. L., M.A.; de Zulueta, F., M.A., * *Law*, Sub-Warden; Dickins, H. C., M.A.; Fisher, H. A. L., M.A.; Haldane, J. S., M.A., F.R.S.; Hayes, E. H., M.A., * *Maths.*, Dean of Arts; Heath, A. G., M.A., ‡., *Philos.*, *Classics*; Henderson, H. L., M.A., * *Classics*; Hunter, L. W., M.A., ‡ *Classics*; Joseph, H. W. B., M.A., Junior Bursar, * *Philos.* and *Classics*; Legg,

* Tutor. ‡ Lecturer.

L. G.W., M.A., Dean, and Dean of Divinity, *Modern History; Matheson, P. E., M.A., * *Anc. Hist.* and *Classics*; Milner, Rt. Hon. A., Viscount, M.A., Hon. D.C.L.; Moyle, J. B., D.C.L., Senior Bursar; Ogg, D., B.A., ‡ *Modern Hist.*; Prestige, G. L., B.A., ‡; Prickard, A. O., M.A.; Pye, D. R., M.A., ‡ *Engin. Science*; Rashdall, H., M.A., D.Litt., ‡ *Philos.*; Robinson, W. C., M.A.; Rowden, F., M.A.; Schuster, E. H. J., M.A., D.Sc.; Smith, G. W., M.A., * *Zool.*; Walden, A. F., M.A., * ‡ *Chem.*

ORIEL COLLEGE. Founded 1326. Provost—C. L. Shadwell, D.C.L.

Fellows: Hall, F. H., M.A., *, Dean; Lewis, W. J., M.A., F.R.S.; Price, L. L. F. R., M.A., Treasurer; Phelps, L. R., M.A., *; Richards, G. C., M.A., *; Ross, W. D., M.A., *; Tizard, H. T., M.A., ‡ *Natural Science*; Tod, M. N., M.A., Assistant Tutor.

Other Lectrs.: Brook, R., M.A., *Divinity*; Dixon, A. L., M.A., *Mathematics*; Lee, R. W., B.C.L., M.A., *Jurisprudence*; Montague, F. C., M.A., *Modern History.*

PEMBROKE COLLEGE. Founded 1624. Master—Rt. Rev. J. Mitchinson, D.C.L., ‡ *Responsions Grammar.*

Fellows: Allen, G. B., M.A., Dean, * *Pass Classical Subjects, Theology*, Dean; Brown, J. R., M.A., Junior Bursar, ‡ *Classics* and *Anc. Hist.*; Collingwood, R. G., B.A., ‡ *Classics and Philos.*; Drake, H. L., M.A., Junior Dean, * *Hon. Mod. Classics*; Leudesdorf, C., M.A., Vicegerent; Ramsden, W., D.M.; Wood, G., M.A., Senior Bursar.

Other Lectrs.: Brabant, F. G., M.A., *Pass Maths.*; Campbell, J. E., M.A., Hert., *Honour Maths.*; Hazel, A. E. W., B.C.L., M.A., Jes., *Jurispr.*; Penson, T. H., M.A., *Modern Hist.*

THE QUEEN'S COLLEGE. Founded 1340. Provost—J. R. Magrath, D.D. Pro-Provost—E. Armstrong, M.A., ‡.

Fellows: Allen, T. W., M.A., * *Classics*; Armstrong, E., M.A., Lectr. *Mod. Hist.*; Clark, A. C., M.A., * *Classics*; Cronshaw, G. B., M.A., Bursar, ‡ *Nat. Science*; Grenfell, B. P., M.A., D.Litt.; Hodgkin, R. H., M.A., ‡ *Mod. Hist.*; Morice, F. D., M.A.; Paton, H. J., B.A., ‡ *Philos.*; Pidduck, F. B., M.A.; Streeter, B. H., M.A., Dean, ‡ *Classics* and *Theol.*; Thompson, C. H., M.A., * *Maths.*; Walker, E. M., M.A., Senior Tutor, *Classics.*

Other Lectrs.: Chattaway, F. D., M.A., *Chem.*; Hazel, A. E. W., B.C.L., M.A., *Law*; Vernon, H. M., D.M., *Physiol.*

ST. JOHN'S COLLEGE. Founded 1555. President—H. A. James, D.D.

Fellows: Ball, S., M.A., Senior Tutor, ‡ *Classics and Philos.*; Bidder, H. J., B.D., Principal Bursar; Burney, C. F., D.Litt., M.A., ‡ *Hebrew*; Dermer, E. C., B.D.; Dickins, G., M.A., ‡ *Anc. Hist.*; Douglas, C. G., B.Sc., D.M., ‡ *Nat. Science*, Senior Dean of Arts; Hall, F. W., M.A., *, Junior Bursar, ‡ *Classics*; Handyside, J., M.A.; Holdsworth, W. S., D.C.L., ‡ *Jurispr.*; Hutton, Ven. W. H.,

B.D.; Poole, A. L., B.A., ‡ *Modern Hist.*; Powell, J. U., M.A., * ‡ *Classics*; Pullan, L., M.A., * ‡ *Theol.*; Stevenson, W. H., M.A., Vice-President, Senior Dean of Arts; Stocks, J. L., M.A., ‡ *Classics and Philos.*

Other Lectrs.: Griffith, I. O., M.A., *Phys.*; Moore, T. S., M.A., Magd., *Chem.*; Russell, J. W., M.A. Mert., *Maths.*

Reader: George, T. P., B.A.

TRINITY COLLEGE. Founded 1554–5. President—H. E. D. Blakiston, D.D., ‡ *Classics.*

Fellows: Brierly, J. L., M.A., B.C.L., ‡ *Law*; Coupland, R., M.A., ‡ *Anc. Hist.*, Dean; Green, M. H., M.A., ‡ *Classics*; Jones, H. S., M.A., Research Fellow; Knox, R. A., M.A., ‡ *Classics*; Nagel D. H., M.A., * ‡ *Nat. Science*, Junior Bursar; Patterson, M. W., M.A., * ‡ *Modern Hist.*; Prichard, H. A., M.A., ‡ *Philos.*; Raper, R. W., B.C.L., M.A., Vice-President, Senior Bursar, ‡ *Classics*; Tiddy, R. J. E., M.A., ‡ *Classics* and *Engl. Lit.*; Weaver, J. R. H., M.A., ‡ *Modern Hist.*

Other Lectr.: Russell, J. W., M.A., Mert., *Maths.*

UNIVERSITY COLLEGE. Founded 1249. Master—R. W. Macan, M.A., D.Litt.

Fellows: Behan, J. C. V., B.C.L., M.A., ‡ *Law*; Bourdillon, R. B., B.A., Prælector in *Chem.*; Carritt, E. F., M.A., Prælector in *Logic*; Farquharson, A. S. L., M.A., * *Litt. Hum.* and Dean; Leys, K. K. M., M.A., Prælector in *Modern Hist.* and Junior Dean; Parker, C. L., M.A., Prælector in *Theol.*; Poynton, A. B., M.A., * *Litt. Græc. et Lat.*, Dean of Degrees and Bursar; Skeffington, S. W., M.A.; Stevenson, G. H., M.A., Prælector in *Anc. Hist.*; Storr, V. F., M.A.; Walker, E. W. A., D.M., * *Nat. Philos.* and Junior Dean.

Other Lectrs. and Asst. Lectrs.: Campbell, J. E., M.A., Hert., *Maths.*; Carlyle, A. J., M.A., D.Litt., *Pol. Philos. and Econ.*; Church, A. H., M.A., Jes., *Bot.*; Craig, E. S., M.A., *Phys. and Engin. Science*; Johnson, A. H., M.A., All S., *Modern Hist.*; Speyer, E. R., B.A., *Zool.*; Tiddy, R. J. E., M.A., *Engl. Lang. and Lit.*; Vaughan, A., M.A., *Geol.*; Walters, F. P., B.A., *Classics.*

WADHAM COLLEGE. Founded 1612. Warden—J. Wells, M.A.

Fellows: Dixey, F. A., D.M., F.R.S., Wills Medical Fellow, ‡ *Physiol. and Medical* Subjects, Bursar; Drewitt, J. A. J., M.A., ‡ *Classics and Philos.*; Richards, H. P., M.A., Sub-Warden, ‡ *Classics*; Stenning, J. F., M.A., Dean, ‡ *Div., Hebrew*; Stowe, A., M.A.; Webster, E. W., M.A., * ‡ *Classics and Philos.*

Other Lectrs.: Griffith, I. O., M.A., St. J., *Maths. and Phys.*; Lennard, R. V., M.A., New, *Modern Hist.*; Smith, H. A., M.A., Magd., *Jurispr.*

WORCESTER COLLEGE. Founded 1714. Provost—C. H. O. Daniel, D.D.

* Tutor ‡ Lecturer.

Fellows: Cunningham, H. J., M.A., *‡ *Anc. Hist.*; Gerrans, H. T., M.A., ‡ *Maths.*; Jackson, T. W., M.A.; Lee, R. W., M.A., B.C.L., *, Vice-Provost, ‡ *Jurispr.*; Lys, F. J., M.A., *, Bursar; Owen, R. H., M.A., ‡ *Classics*; Truslove, R., M.A., Dean, ‡ *Classics*.

Other Lectrs.: Burney, C. F., M.A., D.Litt., St. J., *Theol.*; Marriott, J. A. R., M.A., New, *Modern Hist.*

St. Edmund Hall. Founded 1229. Principal—H. H. Williams, M.A.

Staff: Brewis, G. B., M.A., Senior Tutor; Priestley, E. C., B.A., ‡ *Modern Hist.*; Simpson, D. C., M.A., * ‡ *Theol. and Hebrew.*

Keble College. Founded 1870. Warden—W. Lock, D.D. Sub-Warden—J. Tracey, M.A., * *Litt. Hum.*

Other Tutors: Cooper, H. B., M.A., Dean of Degrees, *Classics*; de la Hey, E. W. M. O., M.A., *Theol.*; Jackson, W. H., M.A., D.Sc., *Nat. Science*; Matheson, F. W., M.A., *Theol.*; Morgan, F., M.A., *Hist.*; Owen, A. S., M.A., *Classics*; Reade, W. H. V., M.A., Dean of Coll., *Litt. Hum.*; Simpson, D. C., M.A., *Theol.*

Lectrs.: Baskerville, G., M.A., *Hist.*; Champernowne, F. G., M.A., Bursar, *Jurispr.*; Dale, R. F., B.Mus., M.A., *Maths.*

Non-Collegiate Students. In 1868 persons were first permitted under certain conditions to become students and members of the Univ. without being members of any Coll. or Hall.

Censor: R. W. M. Pope, D.D., Worc.

Tutors: Baker, J. B., M.A.; Kendrew, W. G., M.A.

Honour Tutors and Lectrs.: Angel, A., M.A., B.Sc., Ch. Ch., *Chem.*; Baker, J. B., M.A., Non-Coll., *Modern Hist.*; Bouchier, E. S., M.A., Exe., *Class.*; Cheshire, G. C., B.C.L., M.A., Exe., *Jurispr.*; Dixey, F. A., D.M., F.R.S., Wadh., *Physiol.*; Haselfoot, C. E., M.A., Hert., *Phys.*; Jeffery, R. W., M.A., B.N.C., *Modern Hist.*; Johnson, A. H., M.A., All S., *Modern Hist.*; Kidd, B. J., D.D., Keb., *Theol.*; Marriott, J. A. R., M.A., New Coll., *Modern Hist.*; Smith, H. A., M.A., Magd., *Jurispr.*; Snow, T. C., M.A., St. J., *Engl. Lang. and Lit.*; Speyer, E. R., B.A., New, *Zool.*; Stenning, J. F., M.A., Wadh., *Hebrew*; Thompson, C. H., M.A., Qu., *Mathematics.*; Underhill, G. E., M.A., Magd., *Litt. Hum.*; Webb, C. C. J., M.A., Magd., *Litt. Hum.*

Marcon's Hall. Licensed Master—C. A. Marcon, M.A. Lectr.: F. G. Brabant, M.A., *Classics and Maths.*

Pope's Hall. Licensed Master—J. O'F. Pope, M.A., Ch. Ch.

Parker's Hall. Licensed Master—E. S. A. Parker, M.A.

* Tutor. ‡ Lecturer.

GENERAL INFORMATION

Convocation, consisting of all Masters of Arts and Doctors of the Faculties of Divinity, Civil Law, and Medicine who have their names on the Univ. books, has the power of confirming or rejecting (but not of amending) statutes which have passed Congregation. It also transacts much of the ordinary business of the Univ. by means of "Decrees." It confers honorary degrees and also degrees granted by Decree or Diploma. It sanctions petitions to Parliament, authorizes the affixing of the Univ. seal when necessary, and its members elect the Univ. representatives in Parliament. But no proposals can be made to it which have not been sanctioned by the *Hebdomadal Council*, which consists of the Chancellor, Vice-Chancellor, immediate ex-Vice-Chancellor (for a certain period after the expiration of his term of office), and Proctors and 18 other members (Heads of Houses, Profs., &c.) elected by Congregation. This Council takes the initiative in all the legislation of the Univ., except what is proposed by the Genl. Board of the Faculties. *The Congregation of the University* consists mainly of the teaching and administrative elements in the Univ. and Colls. It has the power of adopting, rejecting, or amending legislation submitted by the Hebdomadal Council previously to its submission to Convocation. The *General Board of the Faculties* has power, after consultation with the Board of the Faculty concerned, to draft and send to Congregation through the Hebdomadal Council any proposals on matters connected with studies and examns. which require to be dealt with by Statute.

The Chancellor, elected for life by Convocation, is a non-resident Officer. The executive power is chiefly in the hands of his Deputy, the Vice-Chancellor, who is annually nominated by him from among the Heads of Colls., and the Proctors annually elected by the Colls. and Halls in rotation.

The Colleges are corporate bodies distinct from the Univ. They are not even, at all events directly, subject to laws and regns. made by the Univ.; they manage their own property and elect their own Officers, and the Proctors have no power within their walls. In many matters, however, the Colls. and the Univ. recognize each other's regns., and an intimate relation exists between them; the great majority of the members of the Univ. belong to the Colls., and all who belong to the various Colls. are at the same time members of the Univ. Teaching is given partly by Univ. Profs., Readers, and Lectrs., partly by the more numerous body of Coll. Tutors and Lectrs.

Faculties. Arts; Natural Science; Theology; Law; Medicine. Music and Education are included in Arts; Rural Economy and Forestry in Nat. Science.

Admission to the Univ. ("Matriculation") is without respect of birth, age, nationality, or creed, and follows upon admission to a Coll. or Hall or to the Society of Non-Coll. Students. No one can

become a member of the Univ. unless he first becomes a member of one of these Societies. An application for admission must therefore be addressed, not to any officer of the Univ., but to the proper officer* of the Society to which admission is desired; it should be made, if possible, a year or more before residence is contemplated, especially if rooms within the Coll. walls are desired.

Although the Univ. itself holds no entrance examn., the Colls. and Halls and the Society of Non-Coll. Students require certain qualifications of character and intellectual attainment in which the passing of *Responsions* or some equivalent examn. is ordinarily included.

Terms. The Academical year, which begins in Oct. and ends in June, consists of 4 terms, and residence during a certain number of terms, usually 12 and never less than 8, is a condition of admission to any degree except in Music. Terms must be kept by residence within the walls of a Coll. or Hall, or in licensed† lodgings; and the 4 terms are ordinarily kept by 3 periods of residence, each of some 8 weeks, commencing respectively in Oct., Jan., and April or May, the last period counting as 2 terms.

Terms 1913–14 begin—Michaelmas, Oct. 10 (full term, Oct. 12); Hilary or Lent, Jan. 14 (full term, Jan. 18); Easter, April 15; Trinity or Act, May 30. Michs. and Hilary terms can be kept by 6 weeks residence in each; Easter and Trin., either by 3 weeks in each or by 48 days residence in the 2 terms jointly.

Incorporation. Members of the Univs. of Camb. and Dub. can be, under certain conditions, "incorporated" into this Univ., *i.e.* admitted to the same status and degree which they hold in their own Univ. Notice of intention to incorporate as an undergraduate must be sent to the Registrar of the Univ. through the Head of a Coll. or the Censor of Non-Coll. Students. The privileges of incorporation as a graduate are limited to B.A., M.A., Litt.D., B.D., D.D., and D.Sc. of Camb. or Dub. A Litt.D. (Doctor of Literature) of Dub. becomes a Doctor of Letters of Ox. Any applicant for incorporation must have kept by residence at Camb. or Dub. before taking his degree the same number of terms that he would have been required to keep at Ox. for the corresponding degree. While an undergraduate is allowed to incorporate as a matter of course, a graduate must first satisfy the Hebdomadal Council that there are adequate reasons and obtain their permission.

Degrees. B.A., M.A., B.Litt., D.Litt.; B.Sc., D.Sc.; B.D., D.D.; B.C.L., D.C.L.; B.M., B.Ch., D.M., M.Ch.; B.Mus., D.Mus. Diplomas and Certificates are granted in various subjects (*v.* p. 402).

The degree of Doctor in any Faculty is granted only to Bachelors

* Balliol—The Tutor for Admissions; Hert.—The Principal or the Senior Tutor; Non.-Coll.—The Censor, Students' Delegacy; in other cases—The head of the Society (*v.* list *above*).

† In special circumstances leave to reside in a house which has not been licensed may sometimes be obtained.

in that Faculty (or in some cases to Masters) who have submitted theses or published work adjudged to contain contributions to learning or science of a sufficiently high standard of merit.

ARTS. Examns. in Arts, more usually called "Schools," are sharply divided into Pass and Honour examns.; in the former there is but one standard, in the latter successful candidates are distributed into 3 or 4 classes. No one is admitted to a place in the Class Lists who has exceeded a certain number of terms reckoned from Matricn. No conditions of residence are attached by the Univ. to either Pass or Honour examns.; it is simply for the attainment of the degree of B.A. that residence is obligatory. Every Coll. and Hall, however, as well as the Delegacy of Non-Coll. Students, has its own rules with regard to both residence and the entry for examns. A candidate for the degree of B.A. must (1) reside at the Univ. as a matriculated member during 12 terms (3 academical years),* (2) pass or obtain Honours in the following examns., namely:

(*a*) *Responsions*, which includes (i) *Stated Subjects* (Greek, Latin, and Elem. Maths.); (ii) *Additional Subjects*. The examn. in (i) may be passed before Matricn., and most Colls. require it or an equivalent examn. to be passed before residence is begun. Names of candidates who have not been matriculated must be entered through an officer of the Society to which they intend to belong. Candidates who have passed in (i) are deemed to have "passed Responsions." The examn. in (ii) is taken only by those who wish to obtain exemption from the Classical part of the 1st Pub. examn. The subjects are either Logic or a Greek, Latin, French, German, Italian, or Spanish historical or Philos. work.

(*b*) The *1st Public examn.* in Holy Scripture and either in Greek and Latin or (for those who seek Honours in Maths. at the 1st Public examn.) in Maths.—provided that the Classical part of this examn. need not be taken by a candidate who has passed in an "additional subject" at Responsions, and certain Prelim. examns. in the Final Honour Schools of Nat. Science or Jurispr. or certain other equivalents open to candidates for particular Final Schools.

(*c*) The *2nd Public examn.* This is divided into a Pass School, the 2 Prelim. examns. above mentioned, and 9 Honour Schools. The Pass includes various "Groups": (A) Ancient Hist. and Philos.; Oriental Langs. (B) Mod. Hist.; Mod. Langs.; Pol. Econ.; Law; Engl. Lit. (C) Maths.; Nat. Science. (D) Religious Knowledge.

The Honours Schools are Literæ Humaniores (Philos. and Ancient Hist.); Maths.; Nat. Science (Phys., Chem., Physiol., Zool., Bot., Geol., Astron., or Engin.); Jurispr.; Mod. Hist.; Theol.; Oriental Studies (Sanskrit, Arabic, Hebrew, Persian, or Egyptian); Engl. Lang. and Lit.; Mod. Langs. (French, Ger., Ital., Span., or Russ.).

In order to pass the 2nd Public examn. a candidate must either pass in 3 subjects of the Pass School chosen in accordance with the Statutes or obtain Honours in one of the Honour Schools.

Under certain conditions members of other Univs. may obtain

* Unless he is privileged as a member of another Univ.

exemption from Responsions and, under further conditions, from the 1st Public examn., as well as a remission of 4 terms of the necessary residence. Such privileged students are entitled Affiliated, Colonial, Indian, or Foreign students according as their previous Univ. was at home, in the Colonies, in India, or in a foreign country (*v. infra*, "Affiliated Institns."). No Affiliated, Colonial, or Foreign student can be admitted to the degree of B.A. unless he has shown a sufficient knowledge of Greek either at some approved examn. of his previous Univ. or at Ox. Natives of Asia, Egypt, or the Sudan, born of non-European parents, can obtain permission to substitute English and a classical Oriental Lang. for Latin and Greek in Responsions and the 1st Public examn.

The degrees B.LITT. and B.Sc., instituted in 1895 in order to encourage special study and research, are granted upon the satisfactory completion of an approved course of special study or research pursued under supervision and for the most part at Ox. Application to enter upon such a course may be made by any person over the age of 21 years who produces sufficent evidence of his ability and (1) is a member of the Univ. who has passed the examns. for the degree of B.A., or (2) is a graduate in Arts, Letters, or Science of a Univ. within the U.K., or (3) can satisfy the Education Committee that he has received a good general education. Applications must in all cases be made to the Asst. Registrar through an officer of the Society to which the candidate belongs or desires to belong. Residence as a member of the Univ. for 8 terms is a necessary condition for either degree (*see also* "Affiliated Institns.").

In 1900 the Univ. instituted the higher degrees, D.LITT. and D.Sc., awarded for published work of sufficient merit.

DIVINITY. The B.D. degree is open to candidates in Priest's Orders who have completed 3 years from the day on which they became M.A., and have read publicly 2 dissertations composed by themselves and approved by the Regius Prof. of Div.

LAW. The examn. for the B.C.L. degree is open either (1) to B.A.s of the Univ. or (2) under certain conditions (including residence for 8 terms) to graduates in Arts, Philos., or Science of other Univs. The subjects are Jurispr., Roman, Engl., and Internat. Law.

MEDICINE. The B.M. degree is open only to B.A.s of the Univ. who have passed certain examns. in Med. and Nat. Science. The total period of study for the degree (including the scientific subjects studied in the Arts course) is generally about 7 years, of which between 2 and 3 are usually spent in London in preparation for the more strictly professional subjects of the 2nd B.M. examn. The M.Ch. degree is open to candidates who have passed all the examns. for the B.M. and B.Ch., and either are members of the Surgical staff of a recognized hospital or have acted in such a hospital as Dresser or House Surgeon for 6 mos. A candidate for the D.M. must be a B.M. and have entered

on the 39th term from Matricn. and had his name on the books of some Coll. or Hall or on the Register of Non.-Coll. Students for 26 terms.

Music. The degree of B.Mus. is open to candidates who *either* (*a*) have been admitted to the degree of B.A. *or* (*b*) have (1) passed Responsions or an equivalent or a special Prelim. examn. for students of music, (2) satisfied the examiners in 1 of 4 language subjects in the Final Pass School, and (3) pursued either at the Univ. or at some approved institn. a course of musical study, approved by the Board of Studies for Music, extending over at least 2 yearly courses. All candidates must also pass 3 examns. in Music (the subject of one of which is the composition of a Musical Exercise) under conditions laid down by Statute. There is no residential qualification for the degree of B.Mus., but the conditions of admission to the various examns. make it necessary that the candidate's name should be on the books of his Coll. or Hall or of the Society of Non.-Coll. Students for at least 12 terms. A B.Mus. may qualify for the degree of D.Mus. by passing 2 further examns. in Music, but cannot take the degree until 5 years after his admission to the Baccalaureate.

Courses leading to Diplomas and Certificates have been instituted with the object generally of supplementing the ordinary curricula for the degrees of B.A. and B.M. by providing for more special lines of study. The following list indicates the officer to whom application for information may be made in each instance: *Anthropology* (minimum course, 1 year for Diploma, 3 mos. for Certif. in Phys. or Cultural Anthrop.)—The Secy., Committee for Anthrop., Exeter Coll. (R. R. Marett, M.A., D.Sc. Exe.). *Classical Archæology* (min. course, 1 year)—The Secy., Committee for C.A., Oriel Coll. (M. N. Tod, M.A. Oriel). *Economics and Pol. Science*—The Secy., Committee for Econ., Oriel Coll. (L. L. Price, M.A. Oriel). *Education* (period of residence and training, 1 year)—The Secy., Secondary Training Delegacy, Clarendon Building, Ox. *Forestry* (min. course, 2 years)—The Prof. of Forestry. *French and German*, Colloquial Proficiency and Composition Certificates—The Asst. Registrar. *Geography* (min. course, 1 year for Diploma, 2 terms for Certif. in Surveying, or General and Regional Geog.)—The Prof. of Geog. *Military Subjects* (min. course for Diploma, 2 terms. Certifs. are also granted in Milit. Hist. and in Tactics)—The Secy. to the Delegates for Milit. Instruction (Capt. A. K. Slessor, Ch.Ch.). *Ophthalmology* (a course of Ophth. at Ox. extending over at least 2 mos. is necessary)—The Asst. Registrar. *Public Health*—The Asst. Registrar. *Rural Economy* (min. course, 2 years)—The Prof. of Rural Econ. *Scientific Engin. and Mining Subjects* (open only to members of the Univ. who have passed the examns. for the B.A. degree)—The Secy., Committee for S.E. and M.S., Univ. Museum (H. L. Bowman, M.A., D.Sc.).

Special and Advanced Lectures are among the most distinctive features of Oxford teaching. In recent years arrangements have been made for occasional courses of advanced lectures or instruction by

members of the Univ. not being Profs. or Readers, or by other persons on subjects of which they have made a special study. *See below also*—"Scholarships."

Instruction of selected candidates for the INDIAN CIVIL SERVICE is superintended by a Delegacy (Secy.—F. C. Montague, M.A. Oriel).

MILITARY EDUCATION (*Secy. to the Delegacy for superintending Instruction of Candidates for Commissions*—A. K. Slessor, M.A. Ch.Ch.), *v.* Appendix II. As a general rule the whole ground of each subject will be covered in the 2 winter terms with a view to the March examn., and will be repeated in a less detailed course in the summer term with a view to the Oct. examn. Attendance at approved courses of instruction is requisite. Ox. Univ. candidates nominated to commissions in 1912 numbered 34.

TRAINING OF TEACHERS. In 1892 the Univ. established the Delegacy for the Training of Elem. Teachers (Secy.—G. R. Scott, M.A. Mert.). It is recognized by the Educn. Dept. as the Committee of an Elem. Training Coll. Students are required to matriculate either as members of a Coll. or Hall or as Non-Coll. students. The normal course covers 4 years. For the first 3 students read for their degrees, spending only 2 or 3 hours a week on their professional training, to which the 4th year is devoted wholly. A B.A. may enter for a 1 year course. The Delegacy for the Training of Secondary Teachers (Secy.—N. Waterfield, M.A. New) issues Diplomas in Educn. to students who have satisfied the examiners or obtained distinction in an examn. in Educn. and have also satisfied the Delegates of their efficiency as teachers. Students who have obtained the Diploma and satisfied certain other conditions are recognized as trained teachers by the Board of Educn.

SCHOLARSHIPS OPEN TO GRADUATES. College scholarships are very numerous and valuable, but are for the most part awarded to persons beginning their Univ. careers. The Univ. scholarships are usually open only to members of the Univ. of specified standing. Of those open to graduates, 16, of the aggregate value of £1130 p.a., are for Engl., Greek, and Latin; 1 (£100) is for Ment. and Mor. Philos.; 2 (£80) for Maths.; 8 (£1340) for Med. and Nat. Science; 4 (£440) for Law; 3 (£300) for Theol.; 13 (£760) for Oriental Studies. There are several Coll. Research Fellowships tenable by persons distinguished in Science or Lit. (who may be elected without examn.) on condition of prosecuting some definite work (*v. also* "Rhodes Scholarships" *below*).

The General Board of Faculties (*v.* opening para.) which administers the "Faculties Fund" of £7100 p.a. for the educational needs of the Univ. and the encouragement of ADVANCED STUDY AND RESEARCH, has power to apply a portion of the fund to the provision of studentships or scholarships for the latter purpose; and there are certain funds, such as the Craven and Ireland, which can make grants for the furtherance of particular studies.

The APPOINTMENTS COMMITTEE, together with its Consultative Committee, contains representatives of every Coll. as well as several business men of eminence. It receives notice of (1) scholastic appointments; (2) administrative posts for which the Committee are asked to recommend candidates; (3) openings in Banking and Commercial houses. The *Secy.* is N. Waterfield, M.A., Old Clarendon Building, Broad St. Telegraphic address—Appointments, Oxford. Brief information about posts in the *Public Services* suitable for men who have taken their degree at the Univ. is given in Ch. XV of the Ox. Univ. *Handbook* (*v.* "Publications").

AN ADVISER OF INDIAN STUDENTS has been appointed by the Secy. of State in consultation with the Univ.—S. M. Burrows, M.A. (*v. also* "Indian Institute" *below*).

WOMEN are not eligible for degrees or for membership of the Univ., but by a series of enactments, the first dating from 1884, they are admitted to all Univ. examns. in Arts and Music. In 1910 a Statute was approved by Convocation which constituted a Delegacy for Women Students, provided for the recognition by the Univ., on the recommendation of the Delegates, of Societies for the reception of such students for academical study, and conferred upon students on the books of recognized Societies a privileged status as Registered Women Students. At the same Convocation the existing Societies of Lady Margaret Hall, Somerville Coll., St. Hugh's Hall (now Coll.), and St. Hilda's Hall were admitted by decree, and the Society of Oxford Home-Students by statute, to the privilege of recognized Societies. Women are admitted to the several examns. for the B.A., B.Mus. and D.Mus. degrees upon the conditions as to qualifying examns. prescribed for members of the Univ., and also under special regulations made by the Delegates. Thus women candidates for examns. in Arts may substitute for Responsions or one of the examns. statutably equivalent thereto any one of certain specified examns. in Arith., Algebra, or Geom., and 2 of the languages, French, Ger., Greek, Latin, Ital. They may proceed to any of the Final Honour Schools, except that of Nat. Science, without passing any Intermediate examn. as prescribed for members of the Univ. The Univ. Diplomas, except those in Forestry, Military subjects, and Engin. and Mining, are open to women, as are also the Certifs. in French and German.

The regns. under which women students are admitted to Univ. examns. can be obtained from the Secy., Delegacy for Women Students, Clarendon Building. General inquiries as to facilities offered to women students for study at Oxford should be addressed to the Secy., *Assocn. for the Education of Women, Clarendon Building.*

Recognized Societies

LADY MARGARET HALL, founded in 1878 and opened in 1879; constituted under a Deed of Trust in 1893. *Principal*—Miss H. Jex-Blake. *Vice-Principal*—Miss E. C. Lodge. *Resident Tutors*—The Vice-Principal; Miss J. Spens, D.Litt.; Miss K. McCutcheon.

Lectr.—Miss Hadow. *Librarian*—Miss E. M. Jamieson. *Tutor and Domestic Bursar*—Miss H. C. Deneke.

The Hall is conducted on the principles of the Church of England, with provision for the liberty of members of other religious bodies.

SOMERVILLE COLLEGE, founded as Somerville Hall in 1879. In 1881 it was incorporated as a Coll. under the Companies Acts (1862–80), and in 1894 the style Somerville Hall was changed to Somerville Coll. *Principal*—Miss E. Penrose, M.A. *Vice-Principal*—Hon. Alice Bruce, M.A. *Resident Tutors*—Miss M. Pope; Miss H. Lorimer; Miss H. Darbishire; Miss Hayes Robinson; and Miss E. Jebb. *Librarian*—Miss L. Kempson, M.A. *Bursar*—Miss H. Walton.

A Research Fellow, elected for 3 years, is required to be in residence for at least one year of her Fellowship.

ST. HUGH'S COLLEGE, founded as St. Hugh's Hall in 1886 by Miss Elizabeth Wordsworth, sometime Principal of Lady Margaret Hall, was incorporated as St. Hugh's Coll. in 1911. *Principal*—Miss C. A. E. Moberly. *Vice-Principal*—Miss E. Jourdain. *Resident Tutors*—The Vice-Principal; the *Librarian*, Miss Ady. 4 non-Resident Tutors.

The Coll. is intended for members of, and is conducted according to the principles of, the Church of England.

ST. HILDA'S HALL, founded in 1893 by Miss Dorothea Beale, sometime Principal of Cheltenham Ladies' Coll. At first its students formed a part of the Society of Ox. Home-Students. In 1896, arrangements having been made for its incorporation under the Companies Acts (1862–90), it was recognized as a separate Hall by the Council of the Assocn. for the Educn. of Women in Ox. In 1901 it was associated with St. Hilda's Coll., Cheltenham, under the title of St. Hilda's Incorporated Coll. *Principal*—Miss C. M. E. Burrows. *Vice-Principal*—Miss A. E. Levett. *Resident Tutors*—The Vice-Principal and Miss L. F. Todd. *House Bursar*—Miss G. A. Holland.

The Hall is conducted according to the principles of the Church of England, without restrictions upon the liberty of members of other denominations.

SOCIETY OF OXFORD HOME-STUDENTS, founded in 1879 and until 1910 under the control of the Council of the Assocn. for the Educn. of Women, which appointed its Principal and a Committee of Management. *Principal*—Bertha J. Johnson.

The students reside in their own homes or with relations or in private families in Ox. or occasionally in lodgings.

St. Frideswide's, Cherwell Edge, is a hostel maintained by the Community of the Holy Child Jesus, and approved by the Delegacy for the reception of Roman Cath. Home-Students.

LIBRARIES. The *Bodleian* Library (*Librarian*—F. Madan, M.A., Brasenose), founded in 1602, consists partly of the original collection

of the founder (Sir Thomas Bodley), partly of other collections since given to the Univ., partly of works received under the Copyright Acts, and partly of purchases and small donations. It contains at present over 800,000 bound vols. of printed works (about 1,700,000 separate title-pages) and over 40,000 bound vols. of MSS. It is, in size, the 2nd library in the British Empire and about the 8th in the world, and is much resorted to by Continental and Transatlantic scholars for the study of MSS. and rare editions. 23 vols. of a new series of catalogues of the MSS. have been published as well as a summary catalogue of the acquisitions of 1695–1909. A large underground storage chamber has recently been constructed at a cost of £20,000. The *Radcliffe* Library (*Librarian*—W. H. Jackson, D.Sc., M.A. New and Keb.), established under the will of John Radcliffe, D.M., of University Coll., who died in 1714, contains English and foreign books and periodicals relating to Maths., Nat. Science, and Med. The *Codrington* Library, All Souls Coll., is especially rich in works bearing upon Mod. Hist. and Law. The *Maitland* Library was founded by the Assocn. of Hist. Teachers to commemorate the work of the late Dr. F. W. Maitland, Downing Prof. of English Law at the Univ. of Camb.; a room was provided by All Souls Coll. The Library is intended to assist advanced work and research in social and legal hist. The *Oxford School of Geography*, which has been established by the Univ. in conjunction with the R.G.S., has at *Acland House* a library of geographical books and pamphlets and about 10,000 sheets of large-scale maps. Part of the *Anthropological* Library of Emer. Prof. Sir Edward B. Tylor and the *Beit Colonial* Library are also kept there. The *Hope Entomological* and the *Botanical* Libraries are rich in old memoirs and in 17th and 18th century books respectively. As regards the *Indian Institute* and *Taylorian* Libraries, *see below*. Every Coll. and Hall has a library of its own.

The Indian Institute is intended to form a centre of teaching and information on subjects relative to India and its inhabitants, to promote Indian studies of all kinds, and generally to increase knowledge of Indian affairs. It is also intended to act as a meeting-place for Oriental students of all countries, to draw together and assist the Selected Candidates for the I.C.S., and to befriend or aid natives of India who may be studying in Ox. (*v. also* "Adviser of Indian Students" *above*). Subject to the control of the Curators, the charge and supervision of the Institute are in the hands of the Boden Prof. of Sanskrit. The Library (*Librarian*—Sir George W. Forrest, Hon. M.A.) contains over 23,000 vols. There are collections of 162 Sanskrit and Prakrit MSS., a printed catalogue of which is obtainable, and 64 Persian MSS. In addition to the works on India there are Persian, Arabic, Armenian, Georgian, Turkish, and Egyptian works, and all the leading Oriental journals in English, French, and German. The Museum contains a collection of specimens arranged so as to give a synopsis of Indian life and customs. Indian religions are represented by models and archæol. specimens. There is also a collection of Chinese coins.

The TAYLOR INSTITUTION (adjoining the building occupied by the Ashmolean Museum) contains a library, lecture-rooms, and residential apartments for the *Librarian* (H. Krebs, Hon. M.A.), and all the Univ. lectures and classes in Mod. Langs. are held in it. The Library contains 60,000 vols., comprising the chief philological, literary, and historical works in Old and Middle Engl., German, Dutch, Scandinavian, French, Ital., Span., Slav., and Mod. Greek. It takes in nearly all the Reviews, Literary and Philol. Periodicals and Serials of the various Continental Societies, besides a number of foreign daily papers. It is probably the largest and most complete library of its kind in any country.

MUSEUMS AND LABORATORIES. The *Ashmolean* Museum of Art and Archæology (*Keeper*—D. G. Hogarth, M.A. Magd. *Hon. Keeper*—Sir Arthur J. Evans, D.Litt., M.A. Brasenose, F.R.S., F.B.A.), the earliest English Museum, owes its origin to the collection formed by the John Tradescants—Elder and Younger—(*c.* 1600–50), and handed over by Elias Ashmole to the Univ. in 1683, when the old Ashmolean building was constructed. It includes marbles and other Classical and Egyptian and Oriental, Mediæval, Prehistoric, Anglo-Saxon, and Oxford antiquities, drawings and paintings by old and modern masters and the Ruskin Drawing School (*Curator*—A. Macdonald, Hon. M.A. Worc.). The *Gallery of the Bodleian* contains a large collection of portraits of Benefactors and others connected with the history of the Univ. A *Bodleian Collection of Coins and Medals* contains about 60,000 pieces, arranged in geographical and historical order, and includes many rarities. A catalogue of the Mohammedan coins was pubd. in 1888. The *Hope Collection* (*Keeper*—T. W. Jackson, M.A. Worc.) of engraved portraits has historical value. The *Pitt-Rivers Museum* (*Curator*—H. Balfour, M.A. Trin.) contains, with additions, an Anthropological collection, illustrative of the evolutionary hist. of the Arts, begun by Gen. Pitt-Rivers in 1851 and presented by him to the Univ. in 1883. The *Daubeny Collection* of Volcanic Rocks is kept at Magdalen Coll. All the *Botanical Collections* belonging to the Univ. are arranged at the Botanic Garden (*Secy. to the Curators*—C. R. Carter, M.A. Magd. *Curator of the Fielding Herbarium*—G. C. Druce, Hon. M.A. Magd.), founded in 1621 through the munificence of Henry, Earl of Danby. Among the *Laboratories* may be mentioned the Clarendon (Phys.); Electrical (including 5 research-rooms); Chemistry (Univ. Lab. with 64 benches; Dr. Lee's at Ch.Ch. with accommodation for 30 advanced students and 4 research workers and assaying; Magd. with several research-rooms; Ball. and Trin. for research in Phys. Chem.; Jes. used mainly for Inorganic Chem.); Zoology (Hope Dept. has extensive Entom. collections, including unique examples of mimetic species); Geology; Mineralogy (17,000 specimens, as well as special collections of isolated crystals of minerals, pseudomorphs illustrating alteration of composition, meteorites, and the Corsi collection of 1000 polished blocks of marble and other stones, including valuable antiques); Engineering; Rural Economy; Forestry (Forest Garden and exper. plantations in

Bagley Wood, near Ox.) ; Physiology (practical course in Physiol. optics is given in summer term in connexion with the Diploma) ; Human Anatomy (special facilities for candidates for the Diploma in Phys. Anthrop.) ; Pathology (5 rooms for research, with valuable apparatus ; additions are provided for by an endowment—the Burdon Sanderson ; a Philip Walker studentship, £200 for 2 years, exists for work in this lab.) ; Pharmacology. Almost all the Scientific Institns. belonging to the Univ. are grouped together in and around the *Univ. Museum* (*Secy. to the Delegates*—H. L. Bowman, D.Sc. Magd.). The main building contains collections in illustration of Mineral., Geol., Zool., Comparative Anat., Anthropol., and Path., while the special labs., with appliances for teaching the various special branches of Nat. Science, are contained for the most part in separate buildings grouped round the Central Court.

Observatories. The Univ. Obs. (*Secy. to the Visitors*—W. Esson, M.A. New) is in the Univ. Parks, and is maintained at the expense of the Univ. The Radcliffe Obs. was founded about the year 1771.

The Oxford and Cambridge Schools Examn. Board, established 1873, examines or inspects and reports on the work of schools which provide education of the highest grade. It also holds yearly examns. and awards Certificates—Higher, School, and Lower. The two former exempt the holder, under certain conditions, from Responsions, or from the Prelim. examn. for the degree of B.Mus. The regns. of the Board are pubd. by the Ox. and Camb. Univ. Presses, price 1s. (for School Certif. examn. only, 3d.). The Oxford side of the Board is under the Delegacy for the Inspection and Examn. of Schools (*Secy.*—P. E. Matheson, M.A., 74 High St.).

Local Examinations are held in March, July, and Dec. at Ox. and elsewhere. The *Prelim.* examn. is open to persons under 16 years of age. For the *Junior*, *Senior*, and *Higher* there is no age limit. Candidates successful at the two last-mentioned examns. are on certain conditions exempted from Responsions. The regns. may be obtained from the Secy., Local Examn. Offices. All the examns. are open to persons of both sexes. The conditions under which women candidates may qualify for admission to Univ. examns. in Arts by means of the Higher and Senior Local Examns. will be found in the regns. issued by the Delegacy for Women Students, Clarendon Building.

A Course in English for Foreigners (men only) is provided by a Committee consisting partly of Curators of the Taylor Institn. (*v. supra*) and partly of *ex-officio* members of the Board of the Faculty of Med. and Mod. Langs. It is open to students who are already, or are entitled to become, matriculated students of a foreign Univ., and they need not become matriculated members of Ox. Univ. A working knowledge of written and spoken English is required to enable students to derive full educational benefit from the course. Attendance for at least 8 weeks in Michs., Hilary, or Summer term is required. A

Testamur is granted. Inquiries should be addressed to Prof. J. Wright, 119 Banbury Road.

University Extension. The system begun in Camb. was adopted by Ox. in 1878. Up to the end of the session 1911–12 the number of persons attending courses was 510,000, and the number of students examined 27,000; 16 summer meetings had been held. Reading Univ. Coll. largely owes its origin to extension work. The following certifs. are issued under the sanction of the Delegacy: Terminal, on courses of 10 or 12 lectures; Sessional, on 24; Sessional in Honours, implying distinction and a special essay; affiliation or Higher Certif. of Systematic Study, on a sequence of courses comprising 96 lectures *plus* a general examn.; Vice-Chancellor's, on same conditions as affiliation *plus* examn. in Elem. Maths. and 2 languages. The majority of the lectures are on historical, scientific, or literary subjects. An account of the method of teaching is given on p. 105. Any Univ. Extension student who avails himself of all the advantages offered, including the Summer Meeting, can secure continuous and systematic instruction in almost any subject for a yearly outlay not exceeding £10. Two Colls. (Ball. and Ch.Ch.) have elected Senior Extension Lectrs. to Fellowships or Studentships in view of their success in Univ. Extension work. Further information can be obtained from the Secy. to the Delegates, Univ. Extension Office, Examn. Schools, Oxford.

Tutorial Classes are held in working-class districts under the supervision of a Standing Committee consisting of 7 Univ. Extension Delegates and 7 representatives of the working classes. Students pledge themselves to a 3 years course. The classes meet once a week for 2 hrs. from Sept. to April, and each student writes an essay every fortnight. The Secy. is A. D. Lindsay, Ball. Coll.

Publications. The Statutes and Regns. of the Univ. and lists of its officers and members are contained in the first 3 of the following books: (1) *Statuta et Decreta Universitatis Oxoniensis*, pubd. annually in Oct., price 5s.; (2) *The Examn. Statutes*, containing all the Statutes and Regns. affecting courses of study, examns., and degrees, pubd. in June, 1s. net; (3) the Oxford Univ. *Calendar*, containing the names of all Officers and Members of the Univ. and Colls. with the Honours of each year since Oct. 1900 (for earlier Honours, reference should be made to the *Historical Register*, 1900, 2s. 6d.), pubd. at the beginning of Nov., 5s. net. The Oxford Univ. *Handbook* gives in less official form than that of the Statutes and Regns. the conditions of Admission and Residence; the courses and examns. for degrees and diplomas; the facilities for special study and research and for study and training for the Army and other public services. It gives a very complete account of the scholarships and prizes offered by the Univ. and Colls.; of the Rhodes Scholarships; of the privileges allowed to students coming from other Univs.; of the arrangements made for women students; and adds some account of the apptmts. in the Public Services for which Univ. men may be expected to offer themselves. It has been

prepared by an editor apptd. by the Univ. Press who has had the assistance of contributors specially familiar with these subjects. Price—2s. 6d. net. The *Responsions Pamphlet* gives in detail the subjects, dates of examn., and conditions of entry, and a complete list of exemptions; pubd. early in June, 2d. Regns. *re Commissions in the Army*, 2d.; Diploma in *Forestry*, 6d. *Enactments* in Parliament, specially concerning Univs. of Ox. *and Camb.* and Colls. of Winchester, Eton, and Westminster, ed. by L. L. Shadwell, £2 2s. net. These books are pubd. by the Clarendon Press, and are to be had at the Depository, 116 High Street, Oxford, or at the Ox. Univ. Press, Amen Corner, London, E.C.; in New York, at the American Branch of the O.U.P., 29–35 West 32nd Street; in Toronto, at the Canadian Branch, 25–27 Richmond Street, West; in Melbourne, at the O.U.P., Cathedral Buildings; in Sydney, at Messrs. Angus and Robertson, 89 Castlereagh Street; in Cape Town, at Mr. T. Maskew Miller, 96 Adderley Street; in Calcutta, at Messrs. Thacker, Spink, and Co., Government Place; in Bombay, at the Indian Branch and Messrs. Thacker and Co., Ltd., Esplanade Road; in Madras, at Messrs. Higginbotham and Co., 164 Mount Road. *Ox. Review*, daily during term, ½d., C. Harris, 11 New Road, Ox. *Ox. Univ. Gazette* (official), first Friday and every Tuesday in term, 3d., Clarendon Press. *Ox. and Camb. Year Book and Directory*, Sonnenschein, names and short records of living grads., 5s. each part. "Principles and Methods of Univ. Reform" was pubd. by the O.U.P. in 1909: *see* Appendix IX (vi). There are numerous Histories of the Univ. and Colleges, among them those pubd. by the Ox. Hist. Soc., and the series of College Histories pubd. by Hutchinson and Co.

Affiliated and otherwise Recognized Institutions. Members of certain other Univs. at home and abroad may be admitted to the Univ. as "Junior" or "Senior" students under certain conditions so as to (1) reckon the term in which they are matriculated as their 5th term for all purposes (except admission to the B.C.L. examn.) of provisions respecting Univ. standing, (2) be exempted from Responsions and an Addl. Subject at Responsions [senior students—from all parts of Responsions and the 1st, and any Prelim. examn. of the 2nd, Public examn.], (3) take the degree of B.A. after a residence of 8 terms (instead of 12) provided that they have passed the 2nd Public examn., obtained Honours in the 1st or in the 2nd Public examn. [senior students—obtained Honours in the 2nd Pub. examn.], and (except in the case of Indian students) shown a sufficient knowledge of Greek. A "Junior Student" who has not taken Honours cannot take the B.A. degree until he has resided for 12 terms. An Indian Junior student is entitled to offer English and an Oriental lang. in place of Latin and Greek in Pass Mods., and an Oriental book in place of the examn. in Holy Scripture. The Univs. whose members may be admitted to these privileges are as follows: *U.K.*—Lond., Durh., Manc., Liv., Leeds, Sheff., Birm., St. And., Glas., Aberd., Edin., and Wales. *Indian*—Calc., Panj., Bom., Mad., All. *Colonial*—Acad., Adel., Bish., Cape, Dal., King's (N.S.), McG., McM., Manit., Melb., Mt. All., N. Bruns., N.Z., Qu. (Ont.), Syd., Tasm., Tor. *Foreign*—

Several American Univs. Members of Malta, Laval, Ottawa, and Sask. Univs. and St. Joseph's Coll. (N.B.) may be admitted to the status of Colonial Junior student. A student who has obtained the degree of Ph.D. at a Univ. of the German Empire, Austro-Hungarian Empire, or Switzerland is eligible for the status of Foreign Junior, or, if the degree has been obtained *cum laude* or with higher distinction, Foreign Senior, student. One who has obtained the degree of L.-ès-L. or L.-ès-Sc. at a Univ. of the French Republic is eligible for the status of Foreign Junior, or, if the mention *très bien* or *bien* has been gained, for that of Foreign Senior, student. Individual members of Univs. other than those mentioned may be admitted to the status of Junior or Senior student by a special Decree of Convocation.

The conditions for admission to the status of "Junior Student" are broadly that the candidate must have pursued at his Univ. a course of study extending over 2 years and passed all the examns. incident to that course. For the Colonial Univs. mentioned above (except the Cape, for which there is a special decree) these 2 conditions are all that are necessary, but candidates from American Univs. and Univs. within the U.K. are required to have attained at their examns. a certain standard determined by decree of Convocation,* and members of Indian Univs. must have passed the examns. for the degree of B.A. or B.Sc. The conditions of admission to the status of "Senior Student" are that the candidate must have pursued at his Univ. a course of study extending over 3 years and have taken Honours * in the Final examn. incident to the course.

Members of certain *Affiliated Colleges* are entitled to claim the status of Affiliated Junior student if they have pursued a course of study at their Coll. extending over 2 years and have *taken Honours* † in an examn. incident to that course and held not less than 2 years from the beginning thereof. The Colls. which up to the present time have been affiliated are: St. David's Coll., Lampeter‡; the Univ. Colls., Nottingham, Reading, Southampton, and Exeter; Exeter Diocesan Training Coll.

Persons who (1) have passed the B.A. examns. at Ox.; (2) are grads. in Arts or Letters or Science of Univs. in the U.K.; (3) are grads. in Arts of the Indian, Colonial, and Foreign Univs. above mentioned or of Berl., Bonn, Bres., Buda P., Freiburg, Gött., Greif., Halle, Heid., Kiel, Kön., Leid., Leip., Marb., Mun., Müns., Strass., Utr., Vien., are permitted to enter as advanced students with a view to the degree of B.Litt. or B.Sc.

* These decrees (which also define what constitute Honours in the case of candidates for Senior status and what may be accepted as evidence of sufficient knowledge of Greek) are published annually in the *Examn. Statutes*, or may be obtained on application to the Asst. Registrar. Every privileged Univ. has received copies of the proper forms of Certif. for its own members.

† v. *Examn. Statutes.*

‡ Students who have pursued a 3 years course there and have taken Honours in the Final examn. may be admitted to the status of affiliated Senr. Students.

RHODES SCHOLARSHIPS. These were founded under the will of the late Cecil John Rhodes; they are open to Colonials, Americans, and Germans; and to no others. He desired that "in the election of a student to a Scholarship regard shall be had to (1) his literary and scholastic attainments; (2) his fondness for and success in manly outdoor sports, such as cricket, football, and the like; (3) his qualities of manhood, truth, courage, devotion to duty, sympathy for and protection of the weak, kindliness, unselfishness, and fellowship; and (4) his exhibition during schooldays of moral force of character, and of instincts to lead and to take an interest in his schoolmates." The value of each Colonial and American Scholarship is £300 a year; that of each German Scholarship is £250 a year.

1. *The Colonial Scholarships.* Mr. Rhodes stated in his will that he establishes these because he believes that the education of young Colonists at one of our residential Univs. will "broaden their views," "instruct them in life and manners," and "instil into their minds the advantage to the Colonies as well as to the U.K. of the retention of the unity of the Empire." He directs that the Colonial Scholarships, 60 in all, are to be tenable—9 by students of or from Rhodesia and 3 by students of or from each of the following: In *South Africa*—S.A. Coll. School, Cape Town; Stellenbosch Coll. School; Diocesan Coll. School of Rondebosch; St. Andrew's Coll. School, Grahamstown; Natal. In *Australasia*—N.S.W.; Vict.; South Aus.; Queensl.; West. Aus.; Tasm.; N.Z. In *Canada*—Ont.; Que. *Atlantic Islands*—Newfoundland and its Dependencies; the Bermudas. In *West Indies*—Jamaica. Three and no more were to be filled up in each year from Rhodesia, and one and no more each year from the other places. The Trustees have extended this list by assigning Scholarships in Canada to the following additional Provinces: N.S., N. Bruns., P.E.I., B.C., Manit., and the N.W. Provs. (Alb. and Sask. alternately). To each of these Provs. 3 Scholarships will be appropriated, one being filled up each year.

The conditions of selection vary in the different Colonies. For Cape Colony the Scholarships were bequeathed to individual Schools. It may be said generally that in those Colonies where there are Univs. a candidate (1) must have been for at least 2 years a member of a Univ.; (2) must either have passed Responsions or an equivalent examn., or be qualified to claim the status of Colonial Senior or Junior student; (3) must have completed his 19th and not exceeded his 25th year; and (4) must be a British subject and unmarried. More precise information as to the conditions that prevail in the different Colonies may be obtained on application to the Secy., The Rhodes Trust Seymour House, Waterloo Place, London, S.W. "Oxford and the Rhodes Scholarships" can be obtained at the Ox. Univ. Press Colonial Agencies (*v. supra*, "Publications") in Toronto and Melbourne, and from J. C. Juta and Co., 4 Wall Street, Cape Town. The Scholarships are tenable for 3 years.

2. *The American Scholarships* are awarded 2 years out of every 3. There will be an election in 1914, but none in 1915. In each year in which there is an election one scholar is elected from each of 48 States

or Territories of the Union to which Scholarships are assigned. As the Scholarships are tenable for 3 years, 96 is under normal conditions the maximum number of American Rhodes Scholars in residence at any one time. Candidates must be American citizens and unmarried, and must have passed their 19th but not have passed their 25th birthday on Oct. 1 of the year for which they are elected ; they must have spent 2 years at least at a degree-conferring College or Univ. in the U.S. ; and they must, further, have passed a qualifying examn. conducted on behalf of the Rhodes Trustees by the Ox. Local Examns. Delegacy. The subjects for this examn. are the same as those for Responsions, and a certif. of having satisfied the examiners in Latin, Greek, and Elem. Maths. can be registered as exempting its holder from Responsions. Any candidate who may at such examn. have passed in Latin and Maths. will be eligible to a Scholarship. He will not, however, be able to register the certif. as exempting him from Responsions until he shall have further satisfied the examiners in Greek, or shall have satisfied the Masters of the Schools in the Greek Lang. only. No copies of the papers set in this examn. are published, but copies of Responsions papers can be obtained from the Ox. Univ. Press, 29–35 West 32nd Street, New York. Full information as to the conditions under which Scholarships are awarded in the U.S. can be obtained from the office of the Rhodes Trust in London, or from the Ox. Secy. to the Rhodes Trustees, 9 South Parks Road, Ox.

3. *German Scholarships.* By a codicil to his will Mr. Rhodes, in view of the order issued by the German Emperor making instruction in English compulsory in German Schools, and because he believed that "an understanding between the 3 great Powers will render war impossible, and educational relations make the strongest tie," established 15 Scholarships at Ox., of the yearly value of £250 each, for students of German birth, to be nominated by the German Emperor for the time being. These Scholarships are tenable for 3 consecutive years. In most cases, however, German Rhodes Scholars do not retain their Scholarships for more than 2 years. Information as to conditions, &c., may be obtained by writing to Dr. F. Schmidt, Kultus-Ministerium, Berlin. An account of the working of the scheme in 1912–13 will be found on p. 415 *below*.

THE YEAR 1912–13

Benefactions Received. £6000 from the National Gladstone Memorial Committee for a Prof'ship ; a Treasury grant for additional buildings for the School of Rural Economy ; £5000 towards the building of the new Chemistry Laboratory. During the past 5 years the Trustees of the Ox. Univ. Endowment Fund have received donations amounting to £112,000.

New Posts, &c. Gladstone Prof'ship of Pol. Econ. and Institns. (substituted for a Readership) ; Taylorian Lect'rship in Phonetics. The Rawlinsonian Prof'ship of Anglo-Saxon is to be separated from the

Merton Prof'ship of Engl. Lang. and Lit. The salary of the Sibthorpian Prof. of Rural Agric. has been raised by £200 p.a.

University Extension, &c. 1345 lectures distributed in 161 courses were delivered in 125 Lecture Centres ; 14,130 persons regularly attended ; 40 lecturers were employed. In pursuance of a scheme elaborated in the preceding year a Seminar or Study-Class has been formed for research work in local history at Bradford, and at other Centres students are encouraged to submit to the lecturer notes on original investigations. The Delegates are organizing a study-class in Oxford for Aug. 1914. It is also proposed to hold a vacation course for Foreign students in the same month. For the ordinary Summer Meeting held in Aug. 1913, 1294 tickets were issued. To promote co-ordination of the work of the Local Centres with that of the Summer School the Delegates have already announced the subject for the meeting of 1915. *Tutorial Classes.* 17 were at work under the Committee's supervision. The Committee is endeavouring to increase the amount of individual tuition. Summer classes were organized for 8 weeks in July and Aug. and were attended by 138 students. The Univ. placed £500 at the disposal of the Committee.

Number of Undergraduates. 4025, including 219 Non-Collegiate students. Number of students on the Registers of women students (at beginning of 1913) : Lady Marg. Hall, 68 ; Somerville Coll., 96 ; St. Hugh's, 49 ; St. Hilda's, 46 ; Ox. Home Students, 102.

Honorary Degrees Conferred. (1) *D.D.*—Roper, John C., Bp. of Columbia. (2) *D.C.L.*—Lang, Cosmo G., Abp. of York ; Dillon, Rt. Hon. Viscount ; Custance, Admiral Sir Reginald N. ; von Bar, Prof. Carl L. ; Clunet, Edouard ; Fusinato, Prof. Guido ; Nys, Prof. Ernest ; Root, Hon. Elihu. (3) *D.Litt.*—Saintsbury, Prof. George ; Jackson, Prof. Henry ; Wilcken, Prof. Ulrich ; Legg, J. Wickham. (4) *D.Sc.*—Hobson, Prof. Ernest W. ; Royce, Prof. Josiah. (5) *M.A.*—Guest, Arthur R.

Other Degrees. B.A., 749 ; M.A., 407 ; B.Sc., 7 ; D.Sc., 2 ; B.Litt., 13 ; D.Litt., 1 ; B.D., 4 ; D.D., 5 ; B.C.L., 10 ; B.M., 19 ; D.M., 8 ; M.Ch., 2 ; B.Mus., 11 ; D.Mus., 3.

Changes of Policy and Regulations. Statutes have been passed : (1) Making changes in the constitution of Congregation so as to confine the membership to the teaching and administrative elements in the Univ. and Colls. (2) Discontinuing Group E of the Pass School and establishing Diplomas and Certifs. in Military subjects. (3) Authorizing the grant of Certifs. in Letters and Science to women students on the same conditions as those applicable to men who take degrees of B.Litt. and B.Sc. (4) Establishing a previous examn. in the Honour School of Mod. Hist. (analogous to the Nat. Science and Jurispr. Prelim. examns.), so that History students may be exempted from the Classical part of the First Public examn. (5) Establishing certifs. in French and German for candidates of either sex, whether members of the Univ. (or registered women students) or not. The Univ. is providing complete courses of instruction in preparation for the examns. for these

certifs., but neither attendance at the courses nor residence at Oxford is prescribed.

A new Statute proposes that holders of Prof'ships at present tenable for life and to which no canonry is attached shall vacate office at the age of 70 if the Univ. shall have made provision for the establishment of a pension scheme applicable to them. Another Statute proposes the establishment of such a pension scheme. A new Statute has been proposed substituting for responsions an examn. for school certifs. conducted by the delegacy for the inspection and examn. of schools. A proposal to abolish the existing division of the Hebdomadal Council into 3 orders or classes was negatived in Congregation. Statutes providing that examiners for the School of Theol. need not be in priest's orders of the Church of England and abolishing the requirement that candidates for the degree of B.D. or D.D. shall have been admitted to priest's orders in the Church, and establishing a Diploma in Commerce and Economics suitable for persons intending to pursue a business career, were rejected in Convocation.

New Buildings. £6000 is being spent on an extension of the School of Rural Econ. Part of this sum is provided by a grant from the Development Fund of the Treasury (*v. supra*, "Benefactions"). Additional buildings are being provided for research and teaching in connexion with the School of Forestry. The cost will be partially met from the grant of £1000 from the Development Fund and the £210 contributed by the Council of the Surveyors' Institution. £6000 is being spent on building and equipping a new Engineering Laboratory.

Addition to Library. The Backhouse collection of 17,000 Chinese books and MSS., including a number of "Sung" and "Ming" editions and many other rarities and all the indispensable works of reference for students. This gift brings the total number of Chinese vols. in the Bodleian up to 24,000.

The number of Rhodes Scholars in residence was 175, of whom 73 were from the Colonies, 88 from the U.S.A., and 14 from Germany; 76 completed the period of their scholarships, and 74 newly elected scholars came into residence. In the Final Honours Schools 51 were classed (Litt.Hum., 3; Maths., 2; Mod. Hist., 7; Nat. Sc., 11; Jurispr., 18; Theol., 3; Mod. Langs., 3; Engl. Lit., 4); 9 obtained Diplomas (Anthrop., 1; Econ., 7; Forestry, 1); 3 were awarded the B.Litt. degree, 4 the B.Sc., 7 the B.C.L., 2 the B.M. and B.S., 11 the M.A., and 46 the B.A. Univ. scholarships and prizes were won by 7. 25 represented Ox. against Camb. in inter-Univ. athletic contests. A Rhodes Scholar was President of the Union.

The following list indicates the lines of work taken up by Rhodes Scholars who have left Oxford up to date: Education, 144; Law, 113; Diplomatic and Consular Service, 6; Civil Service—India and British Empire 19, U.S.A. 3, Germany 25; Medicine, 25; Clerical Work, 18; Business, 18; Farming, 12; Journalism, 9; continuing education, 7; Social and Philanthropic Work, 6; Scientific Work (Research), 5; Engineering, 4; Mining, 5; Army (Germany), 1; Miscellaneous, 4; unsettled up to date, 3; unknown, 4.

THE UNIVERSITY OF THE PANJAB, LAHORE

[Established and incorporated by Act XIX of 1882 of the Leg. Council of India. Constitution modified by the Indian Univ. Act VIII of 1904.]

PATRON	H.E. THE GOVERNOR-GENERAL OF INDIA.
CHANCELLOR	THE LIEUT.-GOVERNOR OF THE PANJAB.
VICE-CHANCELLOR AND CHAIRMAN OF THE SYNDICATE *	J. C. R. EWING, M.A., D.D., LL.D.
REGISTRAR	A. C. WOOLNER, M.A. Ox.
DEANS OF FACULTIES	
Oriental Faculty	Hon. Mr. Justice SHAH DIN, B.A., K.B.
Arts	S. ROBSON, M.A.
Law	Hon. Sir ARTHUR REID, M.A.
Medicine	Major D. W. SUTHERLAND, I.M.S.
Science	Major J. STEPHENSON, D.Sc. Lond., I.M.S.

UNIVERSITY COLLEGES AND SPECIAL LECTURERS

ORIENTAL COLLEGE, LAHORE

Principal—A. C. Woolner, M.A. Head Pandit—Siva Datta M.M. Head Maulvi—Haji M. Mufti Muhammad Abdulla, Maulvi Fazil and Munshi Fazil. Head Munshi—M. Abdul Hakim, Maulvi Fazil and Munshi Fazil. Addl. Sanskrit Teacher—P. Ganesh Datta, Shastri.

LAW COLLEGE, LAHORE

Principal—Kanwar Sen, M.A., Bar.-at-Law. Lectrs.—K. C. Chatterji, B.A., B.L., Pleader ; Mian Haqnawaz, B.A., LL.B., Bar.-at-Law.

SPECIAL LECTURERS, 1913–14

Chemistry—A. Smithells, B.Sc. Lond. and Manc., F.R.S., Prof. in the Univ. of Leeds.

History—Ramsay Muir, M.A. Liv. and Ox.

* The Syndicate is the executive governing body of the Univ., *v.* Appendix V.

GENERAL INFORMATION

Apart from providing instruction in Oriental studies and Law, the activities of this, as of other Indian Univs., are at present mainly concerned with examns. and the control of affiliated institns. (*see list below and* Appendix V), in which students prosecute courses of study for Univ. degrees of the other faculties. It has provided for the inspection of every affiliated College once a year (*see also* " New Depts.").

Degrees. Oriental Learning—B.O.L., M.O.L., D.O.L.; Arts—B.A., M.A., D.Lit.; Science—B.Sc., M.Sc., D.Sc.; Law—LL.B., LL.D.; Medicine—M.B., B.S., M.S., M.D.; Teaching—B.T.

Admission to Examinations. Women and persons belonging to certain specified classes may be recommended to the Senate for special orders under s. 19 of the Univs. Act (*see* Appendix V) admitting to examns. as private students. Among these classes are teachers, legal practitioners, and candidates for the degree of Doctor and for certain high-standard language examns.

Oriental Learning. Min. age for Matricn., 15. A 2 yrs. course from Matricn. leads to an Interm. examn., and further courses of 2 yrs., 1 yr., and 2 yrs. to the B.O.L., M.O.L., and D.O.L. successively. Examns. are also held for Proficiency, High Proficiency, and Honours in Arabic, Sanskrit, and Persian Langs. and Lits. Honours admit to the Oriental titles: Maulvi Fazil (in Arabic), Shastri (Sanskrit), and Munshi Fazil (Persian); and High Proficiency to Maulvi Alim, Visharada and Munshi Alim. Examns. are also held for Proficiency, High Proficiency, and Honours in Urdu, Hindi, Panjabi, and Pashto Langs. and Lits.

Arts. Min. age for Matricn., 15. A 2 yrs. course from the Matricn. (in Arts or Sc.) leads to the Interm. examn. The subjects are: Engl.; a Classical Lang., or, in the case of a woman student, French, German, or an Indian Vernac.; Maths. or Phys. and Chem.; 1 of 5 optional subjects. A 2 yrs. course leads from the Interm. examn. to the B.A., the subjects being Engl. and 2 out of 7 others, viz. a Classical Lang. or (for women students) French, Maths. pure or applied, Hist., Pol. Econ., Philos., Phys. or Chem. Honours papers are set in addition to the pass papers, and any candidate may be examined for Honours in any one of his subjects.

For the M.A. no special period of study is prescribed. The examn. is open to a B.A. or to a Panjab B.Sc. taking up Engl. For the D.Lit. 2 yrs. advanced study after passing the M.A., a thesis, and examn. on the subject thereof are required.

Science. Min. age for Matricn., 15. From Matricn. (in Arts or Sc.) a 2 yrs. course leads to the Interm. examn. The subjects are: Engl.; Maths.; Phys. and Chem.; Biol. *or* Physiol. *or* Geol. From

the Interm. examn. a 2 yrs. course leads to the B.Sc. The subjects are: Engl. and 1 of the following groups: (*a*) Physics and Chem.; (*b*) Bot. and Zool.; (*c*) Geol. and Mineral.; (*d*) Physiol. and Chem.; (*e*) Bot. and Chem.; (*f*) Bot. and Physics; (*g*) Zool. and Physiol. Honours are taken in the same way as in Arts.

The M.Sc. is open to a B.Sc. or (except in Maths.) a B.A. who took Maths. or a branch of Sc. in the B.A. examn. A practical course (at least 75 attendances) in an affiliated Coll. is required. For the D.Sc. the requirements are parallel to those for the D.Lit.

Law. For the LL.B. a 2 yrs. course after graduation in Arts or Sc. is required. Two years after passing the LL.B. the examn. for Honours may be taken. The LL.D. may be taken without further examn. after obtaining Honours and thereafter practising for 3 yrs., on submitting a thesis and being recommended by the Board of Studies.

Medicine. Candidates must first pass the Interm. examn. in Science, taking Biol. as an elective subject and an additional test in Chem., or have certain other qualifications accepted as equivalent to these. Then a 2 yrs. course leads to the 1st Professional examn. Next a 1 yr.'s course leads to the 2nd, and another 2 yrs. course to the Final Professional examn. for the M.B., B.S. Thereafter 4 yrs. continuous medical practice or 3 yrs. (or if Honours in Med.—80 per cent. of max. marks—were obtained at the Final M.B., B.S., 2 yrs.) at a recognized hospl. qualify for admission to the M.D. examn. The requirements for the M.S. are parallel.

Teaching. The B.T. is open to anyone who after graduating in any faculty other than the Oriental has undergone a 1 yr.'s course at a Training Coll. affiliated to the Univ.

A Clerical and Commercial Examn. are also held by the Univ.

Residential Facilities. The Oriental and Law Colls. maintained by the Univ. have boarding-houses attached.

Scholarships for Graduates. Govt. and Univ. Scholarships of from Rs.10 + College tuition fees to Rs.25 p.m., tenable for 2 yrs. at an affiliated Coll., are awarded at Degree examns. in the Oriental, Arts, and Science faculties; 2 Albert-Victor-Patiala Scholarships of Rs.20 p.m. for the M.A. Class, tenable 2 yrs., are awarded to candidates of good family; 2 Aitchison Ram-Rattan Sanskrit Scholarships of Rs.25 p.m., tenable for 2 yrs. during preparation for a higher Arts examn. of this Univ. Endowments previously applied to the appointment of Univ. Readers and Translators are now devoted to the undermentioned 6 research studentships for grads., tenable for 2 yrs. and renewable for not more than 2 yrs. for work to be done under the direction of a Principal or Prof. nominated by the Syndicate for the purpose: the Alexandra, Rs.75 p.m., research relating to Oriental Hist.; McLeod-Kashmir, Sanskrit, Pali or Prakrit Lit. or Lang.;

McLeod-Panjab, Arabic Lit. or Lang.; Mayo-Patiala, Vernac. Langs. current in the Panjab; McLeod-Kapurthala, open to a candidate who has taken the Panjab M.Sc. with distinction in Science; Alfred-Patiala, Indian or Oriental subjects.

In 1915 and 1917 a Govt. of India Scholarship of £200 p.a., tenable for 3 yrs. at Ox. or Camb., will be allotted for a Panjab student.

LIBRARY. About 22,000 vols. (Librarian—A. C. Woolner, M.A.)

An ASTRONOMICAL OBSERVATORY is being erected. (Curator—Gopal Singh Chawla, M.A.)

PUBLICATIONS. *Calendar*, pubd. in Sept., Rs.4, obtainable from Registrar.

THE YEAR 1912–13

BENEFACTIONS RECEIVED and new sources of revenue. Special grants have been received from the Govt. of India, viz. non-recurring 2 lakhs, and recurring Rs.35,000.

NEW DEPARTMENTS AND POSTS. An astron. observatory; 2 new Prof'ships in Sanskrit and Arabic (Rs.500 p.m. each), instituted in the Oriental Coll.

It is proposed to appoint each year 2 special lectrs. from Europe for the 6 cold-weather months, the subjects for 1913–14 being Chem. and Hist., and for 1914–15 Economics and Physics.

NUMBER OF STUDENTS. Full-time students preparing for the B.A.: 1st yr. 1110, 2nd yr. 1037, 3rd yr. 407, 4th yr. 436—total 2990. (These figures are only approximate. Moreover, many students preparing for the Interm. examn. do not proceed further.) Bachelor students preparing for the Master's degree, 70. Research students (other than teachers): Masters, 2; Bachelor, 1.

DEGREES CONFERRED. Honorary: *D.O.L.*—Sir Louis Dane, K.C.I.E.; Chancellor; *LL.D.*—Sir Frederick Robertson. Other degrees: M.A. 26, B.A. 175, M.Sc. 4, B.Sc. 12, B.T. 28 (including 2 women), M.B., B.S. 21, LL.B. 79.

ADDITIONS TO BUILDINGS. The Univ. has purchased an adjoining property which will be adapted for the uses of the Oriental and Law Colls.

ADDITIONS TO LIBRARY. The gift of the Azad collection, about 3000 Arabic books.

AFFILIATED COLLEGES

There are Colls. recognized in Degree courses at Amritsar, Delhi, Jammu, Lahore, Patiala, Peshawar, Rawalpindi, Sialkot.

[A—Affiliated in Arabic ; Ap—Applied Maths. ; As—Astronomy ; B—Botany ; B.T.—courses for the B.T. degree ; C—Chemistry ; E—English ; Ec—Economics ; G—Geology ; H—History ; H.E—History and Economics ; M—Maths. ; Mi—Mineralogy ; Pe—Persian ; Ph—Philos. ; Ps—Physics ; S—Sanskrit.]

AMRITSAR, *Khalsa College*. M, up to M.A. ; A, As, C, E, H, Pe, Ph, S, up to B.A. and B.Sc. Chiefly for Sikhs, but non-Sikhs are admitted. There is a boarding-house attached to the Coll. Number of students in B.A., B.Sc., and M.A. Classes, 40. Number of passes in 1912–13, 6.

Principal, and Prof. of *Engl.*—R. G. Wright, B.A. Camb. Prof. of *Maths.*—Hukam Chand, M.A., B.Sc.

DELHI, *St. Stephen's College*. A, up to M.O.L. ; E, H, M, Ph, S, up to M.A. ; Pe, Ps, H.E, up to B.A. Established by the Cambridge Mission. Religious instruction is given daily. A hostel for 55 students adjoins the Coll. There are 2 others, 1 maintained by the Baptist Mission. It is proposed to move the Coll. into New Delhi, and to make it purely residential. Number of students in B.A., B.Sc., and M.A. Classes, 83. Passes, 31.

Principal—S. K. Rudra, M.A. Calc. Vice-Principal—P. C. Mukerji, M.A. Calc. Lecturers for M.A. : *Engl.*—C. F. Andrews, M.A. Camb. *Sansk.*—Raghubar Dyal Shastri, M.A., M.O.L. *Arabic*—M. Abdurrahman, Maulvi and Munshi Fazil. *Maths.*—N. G. Leather, B.A. Camb. *Philos.*—N. K. Sen, M.A. Calc. *Hist.*—F. F. Monk, B.A. Ox.

JAMMU, *Prince of Wales College*. C, E, Ec, G, H, M, Mi, Pe, Ph, Ps, S, up to B.A. and B.Sc. Has a boarding-house for 60 students. Number of students in B.A. and B.Sc. Classes, 32. Passes, 6.

Principal, and Prof. of *Engl.*—S. Robson, M.A. Edin.

LAHORE, *Central Training College*. B.T. Maintained by Govt. and under the control of the Director of Pub. Instrn. Has Phys. and Chem. Labs. Boarding-house for 200 students. Number of students in B.T. Class, 52.

Principal—H. T. Knowlton. Vice-Principal—J. E. Parkinson, M.A. Camb.

LAHORE, *Dayanand Anglo-Vedic College*. S, up to M.A. ; As, C, Ec, E, H, M, Pe, Ph, up to B.A. and B.Sc. Also affild. in Engin. There are 2 boarding-houses in connexion with the Coll. Number of students in B.A., B.Sc., and M.A. Classes, 173. Passes, 35.

Principal, and Prof. of *Chem.*—Lala Sain Das, M.A. Cal., B.A. Camb. Profs. of *Sanskrit*—Pandit Ganpat Rai, M.A. (officiating) ; Pandit Arya Muni.

LAHORE, *Dyal Singh College*. E, Ec, H, M, Pe, Ph, S, up to B.A. Has boarding-houses supervised by Principal and 2 Profs. for 275 students. Number of students in B.A. Class, 119. Passes, 20.

Principal, and Prof. of *Engl.*—T. L. Vasvani, M.A. Bomb.

LAHORE, *Forman Christian College*. M, up to M.Sc.; E, Ec, H, M, up to M.A.; A, As, C, Pe, Ph, Ps, up to B.A. and B.Sc. Supported by the Panjab Mission of the American Presb. Church, U.S.A., and controlled by a Board of Trustees apptd. by the Mission. Has a hostel for Christian students and 2 others providing accommodation for 280 students in all. Number of students in M.A., B.A., and B.Sc. Classes, 235. Passes, 73.

Principal, and Prof. of *Engl.*—J. C. R. Ewing, M.A., D.D., LL.D. Wash. and Jeff., Vice-Chancellor of the Univ. Vice-Principal, and Prof. of *Hist.*—H. D. Griswold, M.A., D.D., Ph.D. Union and Corn. *Maths.*—S. N. Das Gupta, M.A. Calc.

LAHORE, *Government College*. A, B, C, E, H.E, M, Ph, Ps, S, Z, up to M.A. and M.Sc.; As, Pe, up to B.A. and B.Sc. Under the control of the Director of Pub. Instrn., and is the only Arts Coll. maintained by the Panjab Govt. Extensive labs., Biol. Museum, hostel for Hindus and Mohammedans. Number of students in M.A., M.Sc., B.A., and B.Sc. Classes, 266. Number of passes in 1913, 68.

Principal, and Prof. of *Zool.*—J. Stephenson, D.Sc. Lond., Major I.M.S. Other Profs.: *Phys.*—A. S. Hemmy, B.A. Camb., M.Sc. Melb. *Engl.*—G. A. Wathen, M.A. Camb. *Philos.*—L. P. Saunders, B.A. Camb. *Econ.*—J. E. Gately, B.A. Liv. *Hist.*—H. L. O. Garrat, M.A. Camb. *Maths.*—Gopal Singh Chawla, M.A. Panj. and Calc., B.A. Camb. *Bot.*—Shiv Ram, M.Sc. Panj., B.A. Camb.

LAHORE, *Islamia College*. A, up to M.A.; E, Ec, H, M, Pe, Ph, up to B.A. For Mohammedans. Has a hostel for 120 students. Number of students in B.A. and M.A. Classes, 62. Passes in 1912–13, 13.

Principal, and Prof. of *Engl. Lit.* and *Econ.*—H. Martin, M.A. Ox. Prof. of *Oriental Lit.*—M. Asghar Ali, M.O.L., Maulvi and Munshi Fazil.

LAHORE, *Medical College*. Affiliated up to the M.D. and M.S. Supported by and under the immediate control of the Panjab Govt. Attached to the Coll. is the Lady Lyall Home for women students under the control of the Countess of Dufferin Fund Committee. Number of students in M.B., B.S. Classes, 118. Number of passes in 1912–13, 21.

Principal, and Prof. of *Med.*—Major D. W. Sutherland, M.D., C.M. Edin., M.R.C.P. Lond., F.R.S. Edin., I.M.S. Other Professors: *Anat.*—Capt. H. H. Broome, M.B., Ch.B. Edin., M.R.C.S. and L.R.C.P. Lond., I.M.S. *Diseases of Ear, Eye, and Throat*—Major H. Ainsworth, M.B., M.R.C.S., L.R.C.P., F.R.C.S. Eng., I.M.S. *Dis., Mental*—Lt.-Col. G. F. W. Ewens, M.D. R.U.I., M.R.C.S. Eng., L.R.C.P. and L.S. Lond., D.P.H. Camb. *Forensic Med. and Toxicol.* Lt.-Col. W. R. Clark, M.A., M.B., C.M. Lond., D.P.H. Aberd., M.R.C.P. Lond.,

I.M.S. *Hygiene*—A. G. Newell, M.D. Glas., C.M., L.M. Dub., D.P.H. Camb. *Mat. Med.*—Major H. G. Melville, M.D., C.M. Edin., F.R.C.S. Edin., I.M.S. *Midwifery and Dis. of Women*—Major R. Heard, B.A., M.B., B.Ch., B.A.O. R.U.I., I.M.S. *Path.*—Major W. H. C. Forster, M.B., C.M. Edin., D.P.H. Camb., I.M.S. *Physiol.*—C. C. Caleb, M.B., M.S. Dur., M.R.C.S. Lond. *Surg.*—Major E. V. Hugo, M.D., B.S. Lond., F.R.C.S., I.M.S.

PATIALA, *Mohindra College*. M, up to M.A.; A, E, Ec, H, Pe, Ph, S, up to B.A. Maintained entirely at expense of the State. No fees are charged. Has a boarding-house for 140 students. Number of students in M.A. and B.A. Classes, 76. Passes, 11.

Principal—E. Candler, B.A. Camb. Prof. of *Maths.*—Lala Bhagat Ram, M.A., LL.B.

PESHAWAR, *Edwardes College*. A, Ap, E, Ec, H, Pe, S, up to B.A. Has a hostel for 25 students. Number of students in B.A. Class, 11. Passes, 2.

Principal, and Prof. of *Engl.* and *Hist.*—T. Bomford, M.A. Camb.

RAWALPINDI, *Gordon Mission College*. A, As, C, E, H, M, Pe, Ph, Ps, S, up to B.A. and B.Sc. Has Chem. and Biol. Labs. Number of students in B.A. and B.Sc. Classes, 19. Passes, 4.

Principal, and Prof. of *Engl.*—E. L. Porter, M.A., D.D. Westminster Coll., U.S.A.

SIALKOT, *Murray College*. A, E, H, M, Pe, Ph, S, up to B.A. Maintained by Panjab Mission of the Church of Scotland. Number of students in B.A. Class, 9.

Principal, and Prof. of *Engl.* and *Philos.*—George Waugh, M.A., B.D. Edin.

SRINAGAR, KASHMIR, *Sri Pertab College*. E, H, M, Pe, Ph, S, up to B.A. Maintained by the State. Number of students in B.A. Class, 15. Passes, 4.

Principal, and Prof. of *Engl.* and *Philos.*—Pundit Ikbal Kishen Shargha, B.A. Calc.

QUEEN'S UNIVERSITY, KINGSTON, ONTARIO

[Incorporated by Royal Charter, 1841.]

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DETWEILER, J. D., B.A. Asst.
CADENHEAD, A. F. G. Asst.

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HARPER, C., B.A. Research Assoc.
SAVELL, W. L., B.SC. ,,
WILCOX, R. C., PH.G. Research Asst.
HYLAND, G. Research Asst.

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BURROUGHS, C. W., B.SC. Lectr.

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Mining
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MACDONALD, A., M.A. Tutor.

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PRICE, MISS A., M.A. Tutor.

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MACGILLIVRAY, J., PH.D. LEIP. Prof.
WEBER, E. Tutor.

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CALLANDER, T., M.A. ABERD. AND OX. Prof.
MAC CALLUM, MISS E., B.A. Tutor.

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MITCHELL, G. W., M.A. Assoc. Prof.
SMAIL, W. M., M.A. EDIN., B.A. OX. Asst. Prof.

Hebrew
JORDAN, W. G., B.A., D.D. Prof.
WALLACE, H. T., B.A., PH.D. Asst. Prof.

Latin (v. also *Greek and*)
ANDERSON, W. B., M.A. ABERD. AND CAMB. Prof.
MACDONNELL, P. M., M.A. Tutor.
WHITE, S. A., M.A. Tutor.
TURNER, A. Tutor.

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BUCHANAN, D., M.A., PH.D. Asst. Prof.
GUMMER, C. F., M.A. Asst. Prof.
ELLIS, D. S., M.A., B.SC., D.L.S. Asst. Prof.
WORKMAN, J. A., M.A. Lectr.
VAN PATTER, H. S., M.A. Tutor.

MEDICINE and Surgery

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KEYES, S. J., M.D. Lectr.

Med. Jurispr. & Toxicol. [Prof.
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MCINTYRE, J., M.A., K.C. Lectr.

Medicine [Prof.
THIRD, J., M.D. TOR., M.D., C.M. TRIN. (*Med. and Clin. Med.*)

CAMPBELL, J. W., B.A., M.D., C.M. (Assoc. Prof. of *Med.* and Prof. of *Therap.*)
RYAN, E., B.A., M.D. (*Clin. Med.*) Assoc. Prof.
ROSS, A. E., B.A., M.D. (*Mat. Med.*) Prof.
KENNEDY, W. A., B.A., M.D., C.M. (*Pharmacol. and Therap.*) Lectr.
YOUNG, E. H., M.B. TOR. Clin. Asst.
GIBSON, W., M.D. ,,
FISHER, S. M., M.D. LOND. ,,
GARDINER, R. J., M.D. (*Mat. Med.*) Lectr.
MACCALLUM, E. C. D., M.D., C.M. MCG. Clin. Asst.

Mental Diseases
YOUNG, E. H., M.B. TOR. (Asst. Supt. Rockwood Hospl. for Insane) Prof.

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GARRETT, R. W., M.A., M.D. Prof.

Ophth., Ot., Laryng., Rhin.
CONNELL, J. C., M.A., M.D. Prof.

Path. and Bacteriology
CONNELL, W. T., M.D., M.R.C.S. ENG., L.R.C.P. LOND. Prof.
GIBSON, W., M.D. (*Clin. Microscopy*) Lectr.
LITTLE, T. Demr.

Pediatrics
MYLKS, G. W., M.D. Prof.

Pharmacol. and Therap., v. *Med.*

Sanitary Sc. and Prev. Med.
PROF. CONNELL (*Path.*) Prof.

Surgery
MUNDELL, D. E., B.A., M.D. (*Principles and Practice*) Prof.
ANGLIN, W. G., M.D., M.R.C.S. ENG. (*Clin. Surg.*) Prof.
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MORRISON, C. A., M.D. Asst. Prof.
ETHERINGTON, F., M.D., L.R.C.P. AND S. EDIN. Lectr.
HANLEY, R., M.D. Clin. Asst.

METALLURGY, v. *Electro-Chem.* and *Engin.*

MINERALOGY
NICOL, W., M.A. Prof.
DAVIS, N. B., B.SC. Asst.

MINING, v. *Engin.*

PHILOSOPHY [Prof.
WATSON, J., M.A., LL.D. (*Moral P.*)
FERGUSON, A. S., M.A. ST. AND. AND OX. Junr. Prof.
SYMONS, N. J., B.A. OX. (Lectr. in *Psych. and Logic*) Asst. Prof.

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CLARK, A. L., PH.D. Prof.
BAKER, W. C., M.A. Assoc. Prof.
ADAMS, J. M., M.A., PH.D. Asst. Prof.
POUND, V. E., M.A. Lectr.
ALLIN, C. S. Demr.
ADAMSON, W. H. Demr.
BATE, C. B. Demr.
BENNIE, J. A. Demr.
CAMPBELL, J. W. Demr.
FRASER, J. E. Demr.
HOWSON, H. L. Demr.
THOMPSON, A. E. Demr.

POLITICAL and Econ. Science
SKELTON, O. D., M.A., PH.D. Prof.
SWANSON, W. W., M.A., PH.D. Assoc. Prof.
WALSH, T. M., B.A. Tutor.

PUBLIC SPEAKING, v. *Langs.—Engl.*

QUEEN'S THEOLOGICAL COLLEGE

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DALL, J., M.A., B.D. Prof.

Hebrew
JORDAN, W. G., B.A., D.D. Prof.
WALLACE, H. T., B.A., PH.D. Asst. Prof.

New Test. Crit. and Exeg.
SCOTT, E. F., M.A., D.D. Prof.

Old Test. Crit. and Exeg.
JORDAN, W. G., B.A., D.D. Prof.

Practical Theology
LAIRD, R., M.A. Prof.

Systematic Theol. and Apol.
MORGAN, W., M.A., D.D. Prof.

CHANGES IN STAFF

Coleman, H. T. J., appointed *vice* Ellis.
Colvile, K. N., M.A. Ox., Asst. Prof. of Engl., resigned.
Eaton, J. W., apptd. Lectr. in French.
Ellis, W. S., Prof. of Educn. and Dean, deceased.
Fallis, L. D., apptd. Asst. Prof. of Engl. and Lectr. in Pub. Speaking *vice* Greaves.
Greaves, W. H., M.A., Lectr. in Engl., resigned.
Laird, Sinclair, M.A., B.Phil., Assoc. Prof. of Educn., resigned.
McNeill, W. E., Asst. Prof. of Engl., apptd. Assoc. Prof.
Macpherson, W. E., apptd. Prof. of the Hist. of Educn. *vice* Laird.
Millett, F. B., apptd. *vice* Sutcliffe.
Schaub, E. L., M.A., Ph.D., Asst. Prof. of Philos., resigned.
Sutcliffe, E. G., A.B. Harv., Lectr. in Engl., resigned.
Symons, N. J., apptd. *vice* Schaub.
Taylor, W. D., apptd. *vice* Colvile.

GENERAL INFORMATION

This Univ. was founded by members of the Presbyterian Church "for the educating of youth in the Christian religion and in Arts and Sciences." Faculties of *Arts* and *Theology* were established and the Univ. was for many years governed by a Board of Trustees, at first wholly Presbyterian, but latterly only in part of that denomination. The *Medical* Faculty was established 60 yrs. ago. In 1866 it became an independent chartered institn. as the R.C.P. and S., affiliated only for degree-giving purposes. In 1892 it again became an integral part of the Univ. In 1893 the School of *Mining and Pure and Applied Science*, wholly undenominational in character and partly supported by provincial grants, was founded on the grounds of the Univ. and in close connexion with it. In 1907 the Faculty of *Education*, for the professional training of teachers for the secondary schools of Ontario, was founded with 2 profs., 9 lectrs., and a number of instructors. The growth of all these faculties has been so strong and made the Univ. so national in character that in 1912 the few denominational restrictions

remaining in the charter were removed, and powers were given by Act of Parliament for the uniting of the different faculties as Colleges of the Univ.

The Univ. draws its students from all parts of the Dominion. The maritime provinces and Quebec furnish about 6 per cent. of the present total of 1536, Ontario about 75 per cent., and the prairie provinces and B.C. the remaining 19 per cent., except a few from U.K. and the U.S.A., Japan, S. America, the W. Indies, and Iceland. The members of the staff are men educated in the Univs. of Canada, the U.K., and the U.S.A., the proportion being about 65 per cent., 25, and 10 respectively. The relation between the Univ. and its graduate body is exceptionally vital and intimate. A Conference of the Theological Alumni meets yearly at the Univ., and in concert with their profs. and those of other faculties spend 10 days in discussing the matters of chief importance to their work. Alumni Assocns. in various districts meet about once a year always with one or two of the profs. as their guests, for the discussion of matters connected with the welfare of the *alma mater*. Three of the best buildings on the grounds stand as monuments to the courage and devotion of the students and recent grads., who by very numerous small subscriptions erected and paid for them.

The Faculties or Colleges (*see* opening para.) now comprised in the Univ. are the Schools of Arts, Mining (including both Applied and Pure Science), Medicine, and Education. The Theol. Coll. occupies its building on the Univ. grounds and, though now constitutionally independent, is in close affiliation with the Univ. The Charter of the affiliated School of Mining also includes Agriculture among the subjects of instruction. At present only a Dairy School is in existence on the side of Agriculture.

Univ. Terms. The Academic year runs from Oct. 1 to Sept. 30; the session 1913–14, Oct. 1 to April 1; the 1st term, Oct. 1 to Dec. 19 incl.; the 2nd, Jan. 5 to April 1.

Degrees. Arts—B.A., M.A., Ph.D.; Theol.—B.D., D.D. (Honorary), Testamur; Med.—M.B., M.D., C.M., D.P.H. (Doctor of Pub. Health), D.Sc.; Science—B.Sc., M.Sc., D.Sc.; Education—B.Pæd., D.Pæd.; Law—LL.D. (Honorary).

Courses and Examns. The Provincial Education Dept. conducts the "Pass Junior" and "Honour" matricn. examns. for the Univs. of Ontario, and the Univ. accepts the Departmental certificates as meeting the requirements for admission to the various faculties. Students over the age of 21 may be admitted to prelim. courses without having passed the matricn. examn., but must pass in Latin before entering the Junior class, in French or German or Greek before taking the Junior class examn. Persons employed in occupations preventing attendance at a secondary school may take the matricn. subjects in instalments spread over not more than 4 yrs. The "Honour"

(formerly known as "Senior") matricn. is of the standard of the 1st yr. examns. in the Univ. Candidates for degrees must attend for instruction in the Univ. at Kingston during at least 1 full session, and if taking specialist courses for teachers not less than 2 full sessions. They must also take at Kingston oral and dictation examns. in Final Honour French and German and practical examns. in Science. For a Medical degree attendance during at least 4 yrs. is required and for the M.D. 5 yrs. Subject to the above a candidate may qualify for a degree by registering himself as an extra-mural student, undergoing instruction by correspondence with a Univ. Tutor, and passing the Jun. and Sen. Class examns. in the prescribed subjects.

The work in the ARTS Faculty comprises regular courses leading to the degrees of B.A. and M.A. in Class., Philos., Mod. Langs.; Hist. (European, Brit., and Colonial); Econ.; Politics; Maths.; Phys.; Chem.; Geol.; Mineral.; Bot.; and Animal Biol. The B.A. degree cannot be taken in less than 3 yrs., nor the M.A. in less than 4 after Matricn. There is a fair range of options, the courses being organized on 3 lines of study, with the main groups in either Philos. with Econ., or Langs., or Science; there is, however, considerable freedom of substitution.

The Ph.D. may be taken (*a*) in 2 Arts subjects, or (*b*) in 1 Arts subject and either Old or New Test. Lang. and Lit., or (*c*) in Old and New Test. Lang. and Lit. It may be taken 3 yrs. after (*a*) taking the M.A. in the 2 Arts subjects selected, (*b*) taking the B.A. with 1st class honours in the 1 Arts subject, completing the Theol. course and passing the examn. in half of the course for the B.D., (*c*) taking an Arts degree and the B.D. A thesis must be presented and examns. passed. The examining Prof. may impose further conditions.

The *extra-mural* dept. is conducted by a special staff of tutors under the supervision and with the help of the professors. The students undertaking this work *in absentia* are mostly teachers of some standing who wish to improve their professional qualifications. The work is as nearly as possible that covered by intra-mural students, and all the examns., including Matricn., must be written in the regular way. A large proportion of these students attend 2 or even 3 yrs., but being of mature age they make use of the privilege of taking classes without attendance in order to save a year or more of residence. During the months of July and Aug. of each year a *Summer School* has been held for the benefit of teachers desiring personal instruction but unable to attend at other seasons. In particular, extra-mural students taking courses involving laboratory work are able to do this work during the vacation period of the primary and secondary schools. Regular students, by attending during the summer, are able to regain standing lost through illness or other cause. The work undertaken consists of those parts of the regular courses most difficult for students working alone. No examns. are held other than the usual Univ. examns. of Sept. and April.

PURE AND APPLIED SCIENCE. Great attention is given to the training in *Mining* Engin. Courses are also given in Elec., Mech.,

Civ., and Chem. Engin., Mining and Metall., Analyt. and Applied Chem., Geol. and Mineral. An attempt is made to frame and carry on courses which combine a thorough theoretical foundation with a sound practical training built upon it, and to select as professors and assistants men who have had experience in Engin. and other works. These men are encouraged to keep up the practice of their professions as engineers, and so to maintain practical acquaintance with modern practice. The long vacation—5 mos.—permits this, and also enables the engin. students to get a large amount of practical experience, as by arrangement with large chem. and engin. establishments the students are taken on for the summer months. Students in Civil and Mining Engin. readily secure suitable employment during the summer, and thus often earn a large part of their college expenses. The undergraduate courses in Applied Science lead to the degree of B.Sc. For advanced study the degree of M.Sc. is given, and for satisfactory research the degree of D.Sc.

Medicine. Candidates for the M.B. must have matriculated in Arts in a recognized Univ. or passed the matricn. examn. prescribed by the Med. Council of Ontario. It is not necessary to take the M.B. before proceeding to the M.D. The courses may be pursued wholly at Queen's or partly at Queen's and at some other medical school. In the latter case at least one full session must be spent at Queen's. The *D.Sc.* (*Medicine*) degree is granted after a period of not less than 2 yrs. between graduation as M.D. and the completion of the course. Original and independent research in some subject of importance to medical science must be undertaken and a thesis must be presented. Candidates who have taken the B.Sc., M.D. course may present themselves for the examn. for the *Diploma of Public Health* after a certain prescribed period of practical work relating to the study of Bact., San. Phys. and Chem., Hyg., and Infec. Diseases. Clinical facilities are provided by the two general hospls., and Rockwood Hospl. for the Insane. The equipment of the school is modern and adequate in every respect. The new laboratories building, besides providing accommodation for Comparative Biol., Bact., and Path., contains also a branch lab. of the Ontario Board of Health. This ensures an ample supply of specimens and materials which can be utilized for instruction.

The Faculty of Education is a professional school for the training of candidates for provincial teachers' certificates of the first class. These certifs. are of 3 kinds: the Pub. School, the High School, and the Specialist Certif. This last qualifies for an advanced position as teacher in one of the 5 recognized depts.—Class., Maths., Engl. and Hist., Nat. Science, Mod. Langs. The course is 1 yr. in length, and the admission requirements are either graduation from a British Univ. or a certificate of having passed the Departmental examns. for entrance to the Faculty. As a preparation for this last examn. a High School course of 6 yrs. is usually regarded as necessary. Students in the Faculty are divided into 2 main groups: (1) the Advanced Course for grads., and (2) the Genl. Course. The extra-mural students follow the Genl.

course and are a small group who, because of prior professional training in a Normal School, followed by 5 yrs. of teaching, are exempt from everything except the final examns. Preliminary requirements for candidacy for the B.Pæd. and D.Pæd. degrees are a Univ. degree, a First Class Provincial Certif. or its equivalent, and a number of years of successful teaching experience. While the Faculty is under Univ. control it is supported by an annual grant from the Ontario Dept. of Educn. All certifs. are issued by the Dept. upon the recommendation of the Dean and Staff of the Faculty.

Theology. Queen's Theological College is now an independent Coll. of the Presbyterian Church in Canada, but from 1841 to 1912 it formed—as the Faculty of Theology—an organic part of the University and made notable contributions to the upbuilding of it. The ordinary course leads to a Testamur in Theol.; advanced work leads to the B.D. degree; while by a special arrangement with the Univ. the D.Ph. degree may be obtained in Old and New Test. Lang. and Lit.

Women students number about 300, most of whom are preparing for teaching in the Secondary Schools. They have exactly the same opportunities and privileges as men. There are no special courses for them. There is an official adviser—Mrs. W. E. McNeill, M.A. The women do much for their own government by means of their Society—the Levana—to which all belong.

Residential Facilities. A women's residence with accommodation for 16 students has been established in connexion with the Univ.

Advanced Studies (see under *Arts*—Ph.D., and *Laboratories*). Grads. proceeding to Europe for advanced study generally go to Ox., Camb., Berl., Heid., or Leip.

Library. 60,000 vols. Yearly increase 2700. The Canadian section is particularly good, especially in Hist., containing many rare documents.

The Museum includes Prof. Fowler's Botanical collection (20,000 Marit. Prov. plants) and 12,000 other plants; Zool., Geol., and Mineral. collections; Ethnol. and Hist. collections, including specimens connected with aborigines of N. America, Queensland, New Guinea, Fiji, New Hebrides, Central India, and Formosa.

Laboratories. The Univ. has a Biol. Lab. capable of accommodating 120 students, and 2 others each fitted for 50 students; Botanical Labs.; Chem. Labs. for Genl., Med., Industrial, and Phys. Chem., and for electro-quantitative and gas analysis. Nicol Hall, the gift of professors, graduates, and alumni—opened during the last session for Mining and Metall.—is also being used in *research* in Metall. for the Dept. of Mines of Canada. This is supported by the Dominion Govt. There are also well-equipped buildings devoted to Phys., Mineral., and Geol.; Elec. and Mech. Engin. (directly connected with the

extensive heating, power, and lighting plant of the Univ.) ; and Civil Engin.

EXTENSION work takes the form mainly of the extra-mural courses (*v. supra*). Besides the extra-mural work there is a lecture bureau through which High and Normal schools, Teachers' and Mechanics' Institutes, and other educational or religious bodies may obtain the services of the profs. to give a single lecture or a course.

PUBLICATIONS. *Calendar* ; separate *Calendars* for Faculties ; *Queen's Quarterly*—a magazine of science and lit. edited by members of the staff of the Univ. ; occasional *Bulletins* of the Depts. of Hist. and Pol. Science by the members of the Faculty ; pubns. issued twice or thrice a year by the Med. Faculty, containing numerous articles by the profs. or grads. in the Faculty.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. $162,415 on Endowment Fund, including $100,000 from Mr. Carnegie ; John Charlton bequest of $50,000 to found a Chair.

SPECIAL EVENT. The visit of H.R.H. the Duke of Connaught Gov.-Gen. of Canada. His Excellency was pleased to accept the honorary degree of LL.D. The guard of honour on this occasion was furnished by Queen's Univ. Canadian Engineers, Company No. 5, 116 strong.

NUMBER OF STUDENTS preparing for a degree in Arts 968, in Engin. 296, in Med. 251, in Educn. 33, in Theol. 28. Of these, 30 were registered in 2 faculties. There are also occasional students, mostly women, residing near the Univ. Nine students preparing for the degree of Ph.D. or D.Sc. were conducting research studies.

HONORARY DEGREES CONFERRED. *D.D.*—John G. Dunlop, M.A., Kanazawa, Japan ; Daniel Strachan, B.A., Toronto, Ont. ; Archdeacon George Forneret, M.A., Hamilton. *LL.D.*—Prof. Arthur Coleman, B.A., Ph.D., Toronto ; Hon. W. T. White, Ottawa ; D. M. McIntyre, B.A., Toronto.

OTHER DEGREES. M.A. 17 (including 2 women), B.A. 203 (including 57 women) ; M.Sc. 1, B.Sc. 54 ; M.D., C.M. 7, M.B. 33 ; Theol.-Testamurs 9, B.D. 5. *Diplomas.* Mining Engin. 1, Civ. Engin. 1.

NEW BUILDINGS, *v. under* "Laboratories."

OTHER DEVELOPMENTS. The Reorganization of the Univ., to bring the School of Mining and the Med. Faculty into closer and clearly defined relationship to the Univ. and to define the new relations to exist between the independent Theol. Coll. and the Univ., was the subject of earnest and harmonious discussion during the year.

UNIVERSITY OF QUEENSLAND, BRISBANE

[Constituted April 15, 1910, under the Univ. of Queensland Act, 1909, of the Queensland Legislature.]

CHANCELLOR	H.E. Sir WILLIAM MACGREGOR, G.C.M.G., C.B., LL.D., M.D.
VICE-CHANCELLOR	R. H. ROE, M.A.
REGISTRAR AND LIBRARIAN	F. W. S. CUMBRAE-STEWART, B.A., B.C.L., Bar.-at-Law.

PROFESSORS, LECTURERS, ETC.

BIOLOGY

JOHNSTON, T. H., M.A., D.SC. Lectr.
GILLIES, C. D. Junr. Demr.

CHEMISTRY

STEELE, B. D., D.SC. Prof.
DENHAM, H. G., M.A., D.SC. Lectr.
BAGSTER, L. S., B.SC. Lectr.

CLASSICS

MICHIE, J. L., M.A. Prof.

Classics and English

CHOLMELEY, R. J., B.A. Lectr.

ENGINEERING

GIBSON, A. J., A.M.I C.E. Prof.
VACANT Lectr.
MUNRO, A. R. Senr. Demr.

Civil Engineering

HAWKEN, R. W., B.A., B.E., A.M.I.C.E. Lectr.

ENGLISH, French, and German

STABLE, J. J., M.A. Lectr.
GRAY, A. K., B.A. CAMB. Asst. Lectr.

GEOLOGY

RICHARDS, H. C., M.SC. Lectr.
WALKOM, A.B., B.SC. SYD. Asst. Lectr.

HISTORY and Economics

MELBOURNE, A. C. V. Lectr.

LOGIC, Psychol. and Education

MAYO, G. E., M.A. Lectr.
VACANT Asst. Lectr.

MATHEMATICS and Physics

PRIESTLEY, H. J., M.A. Prof.
LYONS, R. J., B.A. Asst. Lectr. (*Maths.*).
SWANWICK, K. F., M.A., LL.B. Evening Lectr. (*Maths.*).

Physics

PARNELL, T., M.A. Lectr.
LUSBY, S. G., M.A. Asst. Lectr.

CORRESPONDENCE STUDIES

JONES, T. E., B.A. Director.

CHANGES IN STAFF

Bage, Miss Freda, M.Sc., of Melb., was appointed *pro tem. vice* Johnston.

Gray, A. K., apptd. Asst. Lectr. in Engl. *vice* Ulrich.

Johnston, T. H., Lectr. in Biol., was, at the request of Govt., granted leave to serve as Chairman of the Prickly Pear Commission.

Melbourne, A. C. V., of Adelaide, apptd. *vice* Shann.
Shann, E. O. G., Lectr. in Hist., apptd. Prof. in W. Aust.
Tivey, J. P., B.A., B.E., B.Sc., Lectr. in Engin., resigned.

GENERAL INFORMATION

FACULTIES. Arts ; Science ; Law ; Medicine ; Engineering ; but the Faculties of Law and Medicine are *pro forma* and their duties are confined to admission to *ad eundem* degrees.

MATRICULATION. The minimum age is 16. Admission as an undergraduate member of the Univ. is dependent on passing examns. as prescribed for the several Faculties.

TERMS. The academic year consists of 3 terms and 2 examn. periods. Terms commence on the 11th, 22nd, and 33rd Tuesdays in the year, and each term ends on the 10th Sat. after its commencement. The first examn. period commences on the 9th Tues. and continues 2 weeks ; the second begins on the 44th Tues. and extends over not more than 3 weeks.

DEGREES, &c. B.A., M.A. ; B.Sc., M.Sc., D.Sc. ; LL.B., LL.M., LL.D. ; M.B., M.D., Ch.B., Ch.M. ; B.E. (in Civil, Mech., or Mining Engin.), M.E. ; Diploma of Educn. ; Diploma in Mech. and Elec. Engin.

ARTS. The studies for the B.A. degree extend over a period of not less than 3 years, during which students are required to attend lectures (unless exempted as unable to attend) and pass the 3 annual examns. A B.A. of at least 2 years standing may proceed to the degree of M.A.

SCIENCE. Candidates for the B.Sc. degree must attend lectures, practise laboratory work, and pass examns. comprised in a 3 years course.

ENGINEERING. The courses for the B.E. degree in each of the sub-depts., Civ., Mech., and Mining, and for the Diploma extend over 4 years. For admission to the Diploma course a candidate must qualify in Engl., Arith., Algebra, and Geom. by the Junior Pub. examn. standard.

HONOURS DEGREES are given to candidates who have taken Honours in the Final year of their course. The term "Honours" is restricted to the Final examn. for degrees.

EVENING LECTURES AND EXTERNAL STUDENTS. Provision is made, as required by sec. 20 of the Act, for giving instruction in the evening as well as in the daytime in the Faculties of Arts and Science. Evening students are permitted to extend their course over a period of 5 years. No work in Engin. subjects is done at the Univ. in the evening, but a

course has been arranged by which a candidate may after 5 years work in the evening obtain exemption from the first 2 years of the Day Engin. courses and enter the 3rd year.

Provision is made under sec. 20 of the Act for the exemption from lecture attendance of persons who, having matriculated, are unable to attend lectures at or in connexion with the Univ. Their studies, which synchronize with the work of internal students, are under the Director of Correspondence Studies, who furnishes them from week to week with full notes of the lectures which are delivered in the Univ. They are submitted to the same examn. tests as internal students and receive the same credit therefor. The fees are as for evening students.

Scholarships, &c., open to Graduates. Two gold medals to be awarded by Govt. annually, one to encourage original Chem. Research and one for Engin.; the medallists are entitled to £100 p.a. each for 2 years and free attendance at the Univ; a Foundation Travelling Scholarship of £200 for 2 years to be awarded by Govt. annually; Robert Philip Physics Research Scholarship (interest on £1367) for a graduate in Science.

Women are admitted equally with men to all the benefits, advantages, and privileges of the Univ.

Residential Facilities. Statute IV provides that every undergraduate shall during his period of attendance at the Univ. dwell with (*a*) his parents or lawful guardians, or (*b*) near relative or friend selected by them and approved by the Chancellor or Vice-Chancellor, or (*c*) with a tutor so approved, or (*d*) in some affiliated or approved collegiate or educational establishment, or (*e*) in a boarding-house licensed by the Senate. The following residential Colls. have been recognized by the Univ.: Emmanuel College, in connexion with the Presb. Church; *Principal*—J. Meiklejohn, M.A., D.D. St. John's College, in connexion with the Church of England; *Warden*—E. M. Baker, M.A. Ox. King's College, in connexion with the Methodist Church; *Master*—M. S. Fletcher, M.A. Syd., B.Litt. Ox.

Library. 6500 vols. Arrangements have been made for housing in the Univ. Library the collections of the Royal Soc. of Q., the Q. Inst. of Engineers, and the Q. Elec. Assocn.

University Extension, &c. The lectures are open to persons not members of the Univ. upon payment of the prescribed fee for each course. Senior and Junior *Public Examns.* for the purpose of testing the proficiency of such candidates as may present themselves are held annually in Dec. Public Music examns. are held under a joint scheme in co-operation with Melb., Adel., and Tasm. (*See also* notes *above* regarding evening lectures and external students.) The Director of Corresp. Studies visited the U.S.A. in 1911 to investigate the working of the Corresp. Study Depts. of Univs. in that country. His report is published in the *Calendar* for 1913.

PUBLICATIONS. The *Calendar*, price 2s. 6d.; *Manual of Pub. Examns.*

AFFILIATED INSTITUTIONS. The Act of 1909 provides for the affiliation of the *School of Mines at Charters Towers*, the *Agricultural College at Gatton*, the *Central Technical College* and the *Bacteriological Institute* at Brisbane, and any other educational establishment, as well as any State educational institn., that may be erected within the Univ. domain by Govt.

THE YEAR 1912

BENEFACTIONS RECEIVED. Subscriptions amounting to £1367 for the Robert Philip Physics Research Scholarship; £105 for Engin. School equipment; ammonia and air compressors for the same Dept.

NEW DEPARTMENTS AND POSTS. Progress has been made towards the establishment of a Chair of Agric. Part-time Lectrs. in Hist. and Econ., Mod. Langs., Biol., Phys.; Asst. Lectrs. in Geol. and in Logic, Psych., and Educn.; and a Senior Demr. in Engin. have been added to the staff. The majority of these appointments were created to provide for evening students as efficient instruction as that given to day students.

PUBLIC EXAMNS. were held at Brisbane and 24 other centres. 436 candidates entered for the Junior and 79 for the Senior. The Junior examn. constituted, for the first time, the test for admission to the ordinary and professional branches of the State Public Service.

NUMBER OF STUDENTS. 176 undergraduates (including 47 women) were on the rolls. Day students, 54 men and 36 women; Evening, 52 men and 7 women; External, 23 men and 4 women. These figures include 21 who have not yet entered on Degree courses.

HONORARY DEGREES CONFERRED. *LL.D.*—Rt. Hon. James Bryce, P.C., O.M., &c.; Rt. Hon. Sir Samuel W. Griffith, P.C., G.C.M.G., &c.

OTHER DEGREES. *Ad eundem*—B.A., 5; M.A., 9; D.Sc., 4; B.E., 3; LL.M., 1.

CHANGES IN REGULATIONS. New rules were approved for the degree of B.A. with Honours in Mod. Langs. Provision was made at the request of the Dept. of Pub. Instrn. for instruction in Pedagogy. Additional options were provided in the 3rd year course in Science. An Engin. Diploma course was instituted to enable students engaged in Engin. and allied trades to gain Univ. recognition by attending approved Tech. institns.; the *Central Technical College*, Brisbane, and the Technical College at Ipswich have signified their intention to prepare students for the Diploma.

UNIVERSITY OF ST. ANDREWS

Chancellor and President of the General Council	Rt. Hon. Lord Balfour of Burleigh, K.T., LL.D.
Vice-Chancellor and Principal of the University and of the United Colleges	Sir James Donaldson, Kt., M.A., LL.D., D.D.
Rector and President of the University Court	Rt. Hon. Earl of Aberdeen, G.C.M.G., G.C.V.O., K.T., P.C., LL.D., &c. (1913–16).
Representative in Parliament	Rt. Hon. Sir Robert B. Finlay, G.C.M.G., P.C., K.C., LL.D., D.L.
Secretary and Registrar	Andrew Bennett.
Convener, L.L.A. Scheme	Prof. J. Herkless, D.D.
Librarian	J. M. Anderson, LL.D.
Principal of St. Mary's College	A. Stewart, M.A., D.D.
Principal of University College, Dundee	J. Y. Mackay, M.D., LL.D.
Advisers of Studies at St. Andrews—	
For Arts Students	Prof. Scott Lang.
For Science Students	Prof. Irvine.
Adviser of Studies at Dundee	Prof. Steggall.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE and Rural Econ.
WILSON, J. H., D.SC. Lectr. and Exper. Demr.

ANATOMY [Bute Prof.
MUSGROVE, J., M.D., C.M., F.R.C.S.
DOW, D. R., M.B., CH.B. Lectr. and Asst.
MACKAY, J. Y., M.D., LL.D. *Prof.
LAMONT, LT.-COL. J. C., M.B., I.M.S. *Lectr.

ARCHÆOLOGY, v. *Hist. Anct.*

BIOLOGY, v. *Nat. Hist.*

BOTANY
GEDDES, P., F.R.S.E. *Prof.
WEST, G. *Lectr. and Asst.
ROBERTSON, R. A., M.A., B.SC. Lectr.

CHEMISTRY
IRVINE, J. C., PH.D., D.SC. Prof.
DENHAM, W. S., D.SC. Lectr. & Asst.
HAWORTH, W. N., D.SC., PH.D. Lectr.
MCKENZIE, ALEX., M.A., PH.D., D.SC. *Prof.
WOOD, J. K., D.SC. *Lectr. & Asst.

* At Dundee.

MACDONALD, J. L. A., B.SC. *Asst.
BATE, S. C., B.SC. *Asst.

DIVINITY (v. also *Langs.—Hebrew*) [Primarius Prof.
STEWART, A., M.A., D.D.
Biblical Criticism
MENZIES, M. A., D.D. Prof.
Ecclesiastical History
HERKLESS, J., D.D. Prof.

EDUCATION
EDGAR, J., M.A., F.S.A. †Prof.
VALENTINE, C. W., M.A., D.PHIL. †Asst.

EMBRYOLOGY, Comparative
SHANN, E. W., B.SC. Lectr.

ENGINEERING, Civ. and Mech., and Drawing
GIBSON, A. H., D.SC. *Prof.
FULTON, A., B.SC. *Lectr. and Asst.
RITCHIE, E. G., B.SC. *Asst.
Electrical Engin.
THE PROF. OF PHYSICS *Prof.
ROBSON, W. A. Asst.

GEOLOGY [†Lectr.
JEHU, T. J., M.D., M.A., F.G.S.
CRAIG, R. M., M.A., B.SC. Asst.
BALSILLIE, D., B.SC. *Asst.

HISTORY (v. also *Div.—Eccl. H.*)
Ancient H. and Archæol.
WACE, A. J. B., M.A. Lectr.
Modern History
MACKIE, J. D., M.A. Lectr.

HYGIENE [Prof.
CHANDOS PROF. OF *Physiology*

LANGUAGES and Literature
English Lang. and Lit.
HAY, MARY C., M.A., B.LITT. Asst.
LAWSON, A., M.A., D.D. Berry Prof. of *E. Lit.*
ROY, J. A., M.A. Lectr. and Asst.
SOUTAR, G., M.A., D.LITT. *Lectr.
French & Romance Philol. [†Lectr.
YOUNG, T. P., M.A., D.LITT., O.A.
French Lang. and Lit.
TANQUEREY, F. J., L.-ÈS-L., B.SC., O.A. †Lectr.
VIDEMENT, J. A., B.-ÈS-L., L.-ÈS-L., L.-EN-D. †Asst.
German and Teut. Philol.
SCHAAFFS, G., PH.D., M.A. Lectr.
WAGNER, HERMANN Asst.
STEDE, W. *Lectr.
Greek
BURNET, J., M.A., LL.D., PH.D. [Prof.
LORIMER, W. L., M.A. Lectr. & Asst.
Hebrew and Oriental Langs.
KAY, D. M., M.A., B.SC., D.D. Prof.
MACKENZIE, JOHN K., M.A. Asst.
Latin [Prof. of *Humanity*.
LINDSAY, W. M., M.A., LL.D., PH.D., LITT.D., F.B.A.
THOMSON, H. J., M.A. Lectr. & Asst.
MILLS, T. R., M.A. *Lectr.
Humanity and Greek
MACKINTOSH, A. B., M.A. Asst.

*LAW**
Conveyancing
HENDRY, J. M. *Lectr.
Scots Law
ALLISON, J., M.A., LL.B. *Lectr.

LOGIC and Metaphys. (v. also *Philos.*) [Prof.
STOUT, G. F., M.A., LL.D., F.B.A.
BROAD, C. D., B.A. Asst.
Logic and Psychology
MORRISON, D., M.A. †Lectr.

MATHEMATICS
LANG, P. R. SCOTT, M.A., B.SC. Reg. Prof., *Lectr.
BUTCHART, R. K., B.SC. *Asst.
MUDIE, A. D., M.A. Asst.
SOUTAR, C. W., M.A., B.SC. Asst.
Maths. and Applied Maths.
SOMMERVILLE, D. M. Y., M.A., D.SC. Lectr. and Asst.
STEGGALL, J. E. A., M.A. *Prof.
NORRIE, R., M.A. *Lectr. and Asst.
ROSS, JAMES S. *Asst.

* At Dundee. † At St. Andrews and Dundee.

*MEDICINE and Surgery**

Anæsthetics

MILLS, ARTHUR, M.D. *Lectr.

Diseases of Children

GREIG, D.M., C.M., F.R.C.S.E. *Lectr.

ROGERS, J. S. Y., M.B., C.M. *Lectr.

Diseases, Mental

MACKENZIE, W. T., M.D. *Lectr.

Diseases, Throat, Nose, and Ear

MATHERS, R. P., M.D. *Lectr.

Diseases, Skin

FOGGIE, W. E., M.A., M.D. *Lectr.

Forensic Med. and Pub. Health

TEMPLEMAN, C., M.B., C.M., M.D. *Lectr.

THORNTON, R., M.B., C.M. *Asst.

Materia Medica

MARSHALL, C. R., M.A., CH.B., M.D. *Prof.

GILCHRIST, ELIZ., B.SC. *Asst.

Medicine [*Prof.

STALKER, A. M., M.A., C.M., M.D.

MILLER, G. W., B.SC., M.B., CH.B. *Asst.

Medicine, Clinical

WHYTE, J. M., M.A., M.D. *Lectr.

KERR, C., M.B., C.M. *Tutor.

Midwifery

KYNOCH, J. A. C., M.B., C.M. *Prof.

CAMPBELL, A. S., M.B., CH.B. *Asst.

Midw. and Gynæc.

BUIST, R. C., M.A., M.D. *Lectr.

Ophthalmology [*Lectr.

M'GILLIVRAY, A., C.M., M.D., D.SC.

Pathology [*Prof.

SUTHERLAND, L. R., M.B., C.M.

HUNTER, J. H., M.B., CH.B. *Asst.

Pathology, Clinical

MILNE, F. M., M.A., B.SC., M.B., CH.B. *Lectr.

Surgery

M'EWAN, D., C.M., M.D. *Prof.

PRICE, L. T., M.B., C.M., F.R.C.S.E. *Asst.

Surgery, Clinical [*Lectr.

GREIG, D. M. (v. *Dis. of Child.*)

THE ASST. IN *Surg.* *Lectr.

ROBERTSON, W. L., M.A., M.B., CH.B., F.R.C.S.E. *Tutor.

Vaccin.

BUIST, R. C., M.A., M.D. *Lectr.

NATURAL HISTORY [Prof.

M'INTOSH, W. C., M.D., LL.D., F.R.S.

SHANN, E. W., B.SC. Asst.

THOMPSON, D'A. W., M.A., D.LITT., C.B. *Prof.

MACKINNON, MISS D. L., B.SC. *Asst.

PHILOSOPHY (v. also *Logic*)

MORRISON, D., M.A. †Lectr.

Moral Philosophy [Prof.

TAYLOR, A. E., M.A., D.LITT., F.B.A.

JOHNSTON, G. H., M.A. Asst.

PHILOSOPHY, Natural

BUTLER, A. S., M.A. Prof.

BAGOT, J. C. Lectr. and Asst.

ROBSON, W. G., A.R.C.S. *,,

MILNE, G., M.A., B.SC. ,,

WATT, R. A. W., B.SC. *Asst.

Physics

PEDDIE, W., D.SC. *Harris Prof.

PHYSIOLOGY

HERRING, P. T., M.D. Chandos Prof.

HEWITT, J. A., B.SC. Asst.

REID, E. W., B.A., M.B., SC.D., F.R.S. *Prof.

ROBERTSON, J. C., M.B., CH.B., B.SC. *Asst.

POLITICAL ECONOMY [Lectr.

SCOTT, W. R., M.A., D.PHIL., LITT.D.

PSYCHOLOGY, v. *Logic.*

PUB. HEALTH, v. *Med.—For.*

SOCIOLOGY [Lectr.

WILLIAMS, J. W, M.A., B.LITT.

THEOLOGY, v. *Divinity*

ZOOLOGY, v. *Embryol.* and *Nat. Hist.*

* At Dundee. † At St. Andrews and Dundee.

CHANGES IN STAFF

Balsillie, D., apptd. Asst. Lectr. and Demr. in Geol.
Craig, D. D., Lectr. in Regional Anat., resigned.
Craig, J. D., apptd. Asst. in Humanity and Greek, resigned to take up Ass'tship in Queen's (Ont., Canada).
Dalton, J. P., Asst. in Phys., resigned to take up similar post in S. Africa.
Denham, W. S., Asst. in Chem., apptd. Lectr.
Dow, D. R., M.B., Ch.B., apptd. *vice* D. D. Craig.
Gilchrist, E., apptd. Asst. in Mat. Med., Dundee.
Guild, G. T., Lectr. on Dis. of Throat, Nose, and Ear, deceased.
Hannay, R. K., M.A., Lectr. in Ancient Hist. and Pol. Philos., resigned.
Haworth, W. N., apptd. Lectr. in Chem.*
Johnston, G. H., apptd. Asst. in Moral Philos.
Marshall, H., Prof. of Chem., Dundee, deceased.
Marshall, J., M.A., Junior Asst. in Maths., Dundee, resigned.
Mathers, R. P., apptd. *vice* Guild.
Milne, G., M.A., B.Sc., Asst. in Nat. Philos., apptd. Lectr.
Norrie, R., M.A., Asst. in Maths., Dundee, apptd. Lectr. in Maths. in the Univ.
Ritchie, E. G., apptd. Asst. in Engin., Dundee.
Shann, E. W., Asst. in Nat. Hist. at St. And., apptd. Lectr. in Comparative Embryol. in the Univ.
Soutar, C. W., apptd. *vice* Thomson.
Thomson, R. F., M.A., B.Sc., Asst. in Maths., resigned.
Wace, A. J. B., M.A., apptd. Lectr. in Ancient Hist. and Archæol.
Walker, W. J., apptd. *vice* J. Marshall, resigned.
Watt, R. A. W., apptd. *vice* Dalton.
Welch, H. V., apptd. Lectr. in Anæsthetics in the Univ., resigned.
Williams, J. W., M.A., apptd. Lectr. in Sociol.*

GENERAL INFORMATION (*v. also* Appendix IV.)

This University was founded in 1411. In 1747 St. Salvator's Coll. (founded in 1451) and St. Leonard's Coll. (founded in 1572) were united under the title of "The United Coll. of St. Salvator and St. Leonard."

St. Mary's Coll., founded in 1537, has since 1579 been restricted to the teaching of Theology only.

Univ. Coll., Dundee, founded in 1880, was affiliated to and made to form an integral part of the Univ. in 1897.

FACULTIES. Arts, Science (including Agric. and Engin.), Divinity, Medicine (including Pub. Health).

MATRICULATION is effected by paying a fee and enrolling in one or more Univ. classes qualifying for graduation. A candidate for the

* New appointment.

M.A., M.B., Ch.B., B.L., or B.Sc. degree has to pass or obtain exemption from the prescribed Prelim. examn. (*see* Appendix IV) before entering upon his Degree course; for B.Sc. in Engin. he must pass or obtain exemption before entering for a Degree examn., but not necessarily before entering on a course of study.

TERMS, 1913–14, for Med., Arts and Science, and Div. students respectively, begin—Martinmas on Oct. 7, 13, and 14; Candlemas, on Jan. 6, 13, and 6; and Whitsunday, on April 15 and 29. (For Div. students there is no Whitsun term.)

DEGREES, &c. Arts—M.A., B.Phil., B.Litt., D.Phil., D.Litt.; Science—B.Sc., D.Sc., B.Sc. in Engin., D.Sc. in Engin.; Divinity—B.D., D.D. (Honorary); Law—LL.D. (Hon.); Medicine—M.B. and Ch.B., M.D., Ch.M.; Diploma in Pub. Health.

Courses for graduation in Arts and Science are given both in the United Coll. and in Univ. Coll., Dundee. In the former there is a full staff of Profs. and Lectrs. in Arts, and special teaching is given for the Honours degrees in Class., Philos., Engl., Hist., Econ., Mod. Langs., Maths. and Nat. Science, while in the Faculty of Science full provision has been made for teaching and research work in Agric., Anat., Bot., Chem., Phys., Physiol., and Zool. In the University College, Dundee, Degree courses are provided in all the subjects named above except Greek, Hebrew, Mor. Philos., Pol. Econ., Hist., and Agric., and full Degree courses in Pure Science and in Engin. are given; a complete course for the M.A. degree or B.Sc. degree can be taken there.

In Medicine the United Coll. and Univ. Coll., Dundee, give courses for the 1st and 2nd Professional examns. Students take the remainder of the course in Dundee, in the "Conjoint" Medical School, established by the Univ. Court. Courses for the Diploma in Pub. Health are provided, and courses in Scots Law and Conveyancing are also given in Dundee.

ARTS, PHILOSOPHY, AND LETTERS. As in other Scot. Univs., there is no B.A. degree. The only Bachelor Degrees in Arts—B.Phil. and B.Litt.—are higher degrees than the ordinary M.A., implying a specialization in the Depts. indicated by the title. The M.A. course covers 9 terms at least. A term is kept by attendance on and due performance of the work of at least 2 approved Univ. classes. Candidates have to pass a General and subsequently a Special Examn. In the General examn. Logic and Psych. is an obligatory subject for all students, and every student must take either Latin or Maths.; not fewer than 2 language subjects and at the least one Science subject must be included in it. Attendance at Degree classes in other Scot. Univs. is recognized as qualifying for graduation in this Univ. provided that at least 2 classes are attended in this Univ. for at least 3 terms. Attendance at Degree classes in other than Scottish Univs. may also be recognized. Passes in examns. in Scottish or other Univs. may be also recognized. Every candidate for the B.Phil. or B.Litt. must take the M.A. either before or along with it. There is a 1st Philos. (or 1st

Letters) examn. in at least 3 subjects on a standard the same as that of the M.A. Special, and a Final Philos. (or Final Letters) in at least 3 subjects on the M.A. Honours standard—1st class Honours in 2 and 2nd class at least in a 3rd subject being necessary for a pass.

Science. The curriculum for the B.Sc. covers 3 yrs. Seven courses must be taken, of which 4 must be taken in this Univ. The others may be taken in other institns. or under recognized teachers provided that the fees for attendance in the town of St. Andrews or Dundee must not be less than according to the Univ. scale. In *Engin.* similar conditions apply. Five out of 13 courses must be taken in the Univ.

Divinity. The B.D. examn. is open to (1) a grad. in Arts of this Univ. who has taken a complete Theol. course in a Scot. Univ. or other specially recognized institn. ; (2) a grad. in Arts of any Scot. or other specially recognized Univ. who has completed his Theol. course, of which not less than 2 yrs. has been in this Univ.

Law. The course for the B.L. covers 3 yrs., of which 2 must be spent in this Univ. Before entering on the course a student must have passed the Arts Prelim. examn. or its equivalent, Latin being one of the subjects. The course for the LL.B. also covers 3 yrs., but only 1 need be spent in this Univ. The examns. for this degree are only open to grads. in Arts of a Univ. of the U.K. or of any other Univ. specially recognized. A full course for these Law degrees is not at present given in the Univ., and they are not meanwhile conferred.

Medicine and Surgery. The M.B. and Ch.B. must be taken together. Of the necessary 5 yrs. of medical study 2 must be spent at this Univ. The other 3 may be spent in any Univ. of the U.K. or other recognized institn. or under a recognized teacher. The fees for attendance on extra-mural courses in St. And. or Dundee must not be less than according to the Univ. scale. The prescribed Prelim. examn. must have been passed or exemption obtained before entering on the course. Among the conditions imposed on candidates for the medical degrees, in addition to those common to all schools recognized by the Genl. Med. Council, are attendance for 3 yrs. or 9 terms at Med. and Surg. hospl. practice ; courses in Clin. Med. and Clin. Surg., each extending over 9 mos. or 3 terms ; attendance during 6 mos. or 2 terms at out-patient practice ; service for 6 mos. or 2 terms as Dresser and 6 mos. or 2 terms as Clin. Clerk ; practical instruction in Diseases of Ear, Eye, Nose, and Throat, Dermatology. A M.B. and Ch.B. of at least 24 yrs. of age who has subsequent to graduation been engaged for at least 1 yr. in the Med. (or Surg.) wards of a hospl., or scientific work, or in the Naval, Milit., Colonial, or (for the M.D.) Pub. Health Med. Services, or 2 yrs. in practice not restricted to Surgery (or Med.), and passed the prescribed examn. and submitted a satisfactory thesis, may be admitted M.D. or Ch.M., as the case may be. Facilities are given for *clinical* work

in the Dundee Roy. Infirmary (400 beds) and the Dundee District Asylum (400 resident patients).

THE DIPLOMA IN PUBLIC HEALTH. A candidate for any part of the examn. must have held a Med. degree of a Univ. of the U.K. for at least 12 mos. and have attended a 6 mos. practical course in Chem., Bacteriology, and Diseases of Animals. If not a graduate, he must have taken four months of this course in this Univ. He must also have practically studied under supervision during 6 mos. the duties of Pub. Health Administration and had 3 mos. clinical instruction subsequent to graduation in a hospl. for Infec. Diseases.

TRAINING OF TEACHERS. The St. Andrews Provincial Committee for the Training of Teachers has made provision for full courses of instruction at St. Andrews and Dundee. The period of training is ordinarily 2 yrs. Students who have already graduated may take a 1 yr.'s course. Provision has been made for courses *in the University* in Methods of Teaching for Students training for Secondary School Teacherships.

HIGHER DEGREES IN ARTS AND SCIENCE. The *D.Phil.* or *D.Litt.* degree is open to (1) grads. of 3 yrs. standing of the Univ. who have passed the M.A. examn. with Honours or the Final B.Phil. or B.Litt. or B.Sc. examn. ; (2) grads. of other specially recognized Univs. who have held the office of Prof. or Lectr. in this Univ. for 4 terms ; (3) research students admitted in pursuance of the regns. mentioned in the next para. who have spent not less than 4 terms in satisfactory special study in this Univ. and have for at least 3 yrs. held the M.A. with Honours or the B.Sc. of a Scot. Univ., or a degree equivalent to the M.A. with Honours or B.Phil. or B.Litt. or B.Sc. of this Univ. A satisfactory thesis or published memoir or work, which is an original contribution to learning in relation to Philos. or to Lang. or Lit., as the case may be, must be presented. The *D.Sc.* may be taken by (1) a B.Sc. of this Univ. of 5 yrs. standing ; (2) a M.A. of a Scot. Univ. of 5 yrs. standing who attained a certain specified standard in taking his degree ; (3) a research student who has, in pursuance of the regns. mentioned in the following para., spent 2 winter sessions or their equivalent in satisfactory special study or research in this Univ., and has held for 5 yrs. a degree of B.Sc. or M.B. of a recognized Univ. or a degree of such a Univ. implying the attainment of the aforesaid standard. A satisfactory published memoir or work or a thesis recording an original research must be presented by a candidate for the D.Sc. The D.Sc. in Engin. may be granted to a B.Sc. in the same Dept. of 5 yrs. standing on presentation of a thesis or published memoir or work.

RESEARCH STUDENTS. Regns. provide for the admission (without necessarily passing any entrance examn.) of persons of good general education (whether grads. of other Univs. or not) for the purpose of prosecuting special study or research under supervision. The title

of Research Fellow may be conferred with or without a stipend on specially distinguished students.

Scholarships for Graduates. The United Coll. has 14, of the aggregate annual value of £1000. They are only open to students of the Univ. The 3 Guthrie Scholarships (£80 each, for 4 yrs.) are tenable in Ox. or Camb. or, in special circumstances, in an approved foreign Univ.; the others are tenable at St. And. St. Mary's has a Berry Scholarship (£80 for 1 yr.), and 2 smaller ones are open to graduate students of Theol. Univ. Coll., Dundee, has 2 or 3 Scholarships for post-grad. research. (*See also* below, "New Depts., &c.")

An Appointments Committee exists.

Women are admitted in all Faculties and to all degrees upon the same footing and attend the same classes as men. There are, however, separate dissecting-rooms for men and women Med. students.

Residential Facilities. Univ. Hall for women students has accommodation for 65. (Warden, Miss M. E. Dobson, M.A., B.Sc.) The Senatus and Students' Representative Council have prepared a list of lodgings suitable for students.

The Univ. Library (at St. Andrews) contains nearly 150,000 printed vols., including several printed in the 15th and 16th centuries, and several valuable Persian and other MSS. An annual grant of £630 is received in lieu of the privilege enjoyed under the Copyright Act. An annual grant is also received from the Carnegie Trust. There are also Class Libraries in connexion with the Honours Schools. Univ. Coll., Dundee, has a general and special libraries.

The Univ. Museum has Anthrop., Bot., Geol., Ethnol., Mineral., and Zool. collections. Local and other fish are well represented. Univ. Coll., Dundee, has Geol., Nat. Hist., and Medical Museums.

Laboratories in the United Coll.: Chem., Phys., Zool., Bot., Anat., Anthrop., Embryol., Physiol., Geol., and Marine Research. The Chem. Research Lab. is one of the best in the country and accommodates a large number of Research workers in addition to students preparing for degrees. Univ. Coll., Dundee, has large and well-equipped Labs., including special labs. and opportunities for Research in Maths., Nat. Philos., Chem., Engin. (Elec., Hydraulic, and Mech.), Physiol., Materia Med., Bact., Botany and Nat. Hist., Comp. Anat., Anthrop. and Embryol.

The United Coll. has an Agric. Experiment and Demonstration area, and there are also labs. for research work in Agric., Chem., and Agric. Biol. work, besides an Agric. Museum. There is an ample Bot. Garden with range of glasshouses.

University Extension. The Univ. does not undertake courses of Extension Lectures, but it carries on examns. for the Title and

Diploma of L.L.A. (Lady Literate in Arts) for women. Residence at the Univ. is not essential for candidates in this examn. Its standard is practically equivalent to that exacted for the ordinary M.A. degree. Honours may be obtained in certain branches, and a special Diploma for Teachers is conferred. The subjects (7, or, if Honours are taken, 6 or 5 or 4) may be taken up in any order, and the examn. may be spread over any length of time. Univ. Coll., Dundee, occasionally provides, by request, in the neighbouring city of Perth, instruction in the Chem. of Dyeing and Bleaching. Gifford Lectures (Nat. Theol.), Lectures on Sociol. (at St. And. and Dundee), and other occasional lectures are open to the public.

PUBLICATIONS. The *Calendar*, pubd. about Aug. or Sept., by W. Blackwood and Sons, Edin., price 2s. 6d., contains, in addition to the usual information, examn. papers set during the past year, financial statements and statistics, &c.; *College Echoes* (St. Andrews) and *The College* (Dundee) are issued under the supervision of the Students' Representative Council. The Univ. Court occasionally prints as Univ. publications works by members of the Univ., *e.g.* the Principal's opening address, Oct. 13, 1913, on "The Highest Univ. Education in Germany and France," to which is appended a list of articles and documents bearing on the same subject.

THE YEAR 1912–13

BENEFACTIONS. £1200 for the cost during 4 yrs. of a lectureship in Sociology; £60 for memorial of visit of British Assocn. in 1912. For the year 1912–13 a sum of £6000 was received from H.M. Treasury for the Univ., and a further sum of £2000 for Univ. Coll., Dundee, from the additional grant voted to the Univs. of Scotland. For the period of 5 yrs. ending 1913 the Univ. (including Univ. Coll., Dundee) was entitled to grants amounting to about £37,500 from the Carnegie Trustees.

SPECIAL EVENTS. On Oct. 14, 1913, the new Engin. Lab., Dundee, was formally opened by Sir Alexr. B. W. Kennedy, LL.D., F.R.S. The Earl of Aberdeen was on Oct. 25, 1913, elected Rector.

NEW DEPARTMENTS, &c. A new scheme for Research in Agric. has been instituted with the aid of the Board of Agric. for Scotland. A scholarship in Agric. of £100 p.a. and 2 bursaries in Agric. of £25 each for 3 yrs. have been instituted. The work is carried on under the supervision of the Lectr. in Agric.

The Lectures in Sociology (*see* "Benefactions") will be delivered in the United Coll. and in Univ. Coll., Dundee, each year, and will deal with Sociology as a concrete, descriptive, historical, and comparative science of the various forms of social grouping.

A new Lectureship in Chem. was instituted, and one in Ancient Hist. and Archæol. was substituted for one in Ancient Hist. and Pol. Philos.

NUMBER OF STUDENTS. Undergrads. proceeding to degrees, 385 (including 149 women); other matriculated undergrads., 48 (including 36 women); students merely registered to attend single classes, 11 (including 2 women); grads. taking additional courses, 62 (including 24 women); scholars or Fellows (not members of the staff) engaged in Research, 15 (including 5 women). The above figures include Univ. Coll., Dundee.

HONORARY DEGREES CONFERRED. *D.D.*—Henry William Clark; Robert M'Intosh; James Sibree, F.R.G.S.; Frederick Edward Warren, B.D., F.S.A.; Henry Johnstone Wotherspoon. *LL.D.*—Lt.-Col. Sir Charles Henry Bedford, D.Sc., M.D. Edin., I.M.S., Prof. of Chem., Calc. Med. Coll.; George Albert Boulenger, D.Sc., Ph.D., F.R.S., V.P.Z.S.; John Hutton Balfour Browne, K.C. Lond.; Frederick Cornwallis Conybeare, F.B.A. Ox.; Herbert John Clifford Grierson, Prof. of Engl. Lit., Aberd; William Ross Hardie, Prof. of Humanity, Edin.

OTHER DEGREES. M.A., 52 (including 25 women); D.Litt., 2; D.Phil., 1; B.Sc., 8 (2 women); B.D., 4; M.B., Ch.B., 11 (3 women); M.D., 2; Diplomas in Pub. Health, 7.

CHANGES IN REGULATIONS. Inclusive fees have been introduced providing for the whole course of study in fixed annual instalments of nearly equal amounts, leaving the student a free choice as to the number of courses, within certain limits, which he may take. The Advisers of Studies are to approve of the courses chosen. Hitherto a separate fee has been charged for each class attended.

NEW BUILDINGS. A large additional wing of Univ. Hall for women students, increasing the number for whom accommodation can be provided to 65; new labs. and a museum for the Agric. Dept. at St. And.; a new Engin. lab. at Dundee.

UNIVERSITY OF ST. FRANCIS XAVIER'S COLLEGE, ANTIGONISH, NOVA SCOTIA

[Authorized by Act of the Legislature of N.S. in 1866 to grant degrees; endowed with full Univ. powers by Act of 1882. New Charter granted by Act of 1909.]

CHANCELLOR AND *ex-officio* CHAIRMAN OF THE BOARD OF GOVERNORS	Rt. Rev. J. MORRISON, D.D., Bishop of Antigonish.
PRESIDENT-RECTOR	H. P. MACPHERSON, D.D. Laval.
VICE-PRESIDENT AND PREFECT OF STUDIES	J. J. TOMPKINS, M.A.
VICE-RECTOR AND PREFECT OF DISCIPLINE	H. J. MACDONALD, M.A.
BURSAR	J. M. KIELY.
LIBRARIAN	D. J. MACDONALD, Ph.D.

PROFESSORS, LECTURERS, ETC.

BIOLOGY and German
CONNOLLY, C. J., PH.D. MUN. Prof.

CHEMISTRY
MCINTYRE, R. K., B.A., B.SC. CATH. UNIV. Prof.
TOMPKINS, M. N., B.A., B.SC. TOR. Assoc. Prof.

GEOLOGY and Applied Maths.
MACPHERSON, H., D.D. URB. ROME Prof.

HISTORY (v. also *Langs.—Engl.*)
PROF. COADY (*Apologetics*) Asst. Lectr.
Constitutional History
MACGILLIVRAY, HON. JUDGE Lectr.

LANGUAGES and Literature, &c.
Classics [Asst. Prof.
SMITH, H. R. W., PEMB. COLL., OX.
Engl. Lang., Sociol. and Econ.
MACDONALD, D. J., M.A., PH.D. CATH. UNIV. Lectr.
Engl. Lit. and Mod. Hist.
KENNEDY, W. P. M., M.A. DUB. Prof.
French
CORMIER, A. H., B.A. ST. AND. Prof.
Greek
TOMPKINS, J. J., M.A. ST. FR. AND URB. ROME Prof.
Latin
THE PRESIDENT-RECTOR Prof.
MACDONALD, H. J., M.A., S.T.L. URB. ROME Asst. Prof.
Modern Languages [Asst. Prof.
BOYLE, J., M.A. LOUV. AND ROME

LAW
International Law
GIRROIR, HON. SENATOR E. L. Lectr.
Contracts and Torts [Lectr.
MACDONALD, ALAN, M.A., LL.B.

MATHEMATICS (v. also *Geol.*)
RICE, J. N., M.A. Prof.
BOYLE, J., M.A. LOUV. AND URB. ROME Asst. Prof.

PHILOSOPHY
GILLIS, D. C., PH.D., S.T.L. URB. ROME Prof.

PHYSICS
NICHOLSON, P. J., M.A., PH.D. J. HOPK. Prof.

THEOLOGY, Apologetics [Prof.
COADY, M. M., PH.D. ACAD. ST. THOM. ROME, D.D. URB. ROME

CHANGES IN STAFF

Boyle, J., appointed Asst. Prof. of Maths. and Mod. Langs.
Kennedy, W. P. M., apptd. Prof. of Mod. Hist. and Engl. Lit.
MacEchen, A. J. G., M.A., LL.D., Bar.-at-Law, Prof. of Engl. Lit., resigned.
McIntyre, R. K., apptd. Prof. of Chem.
Smith, H. R. W., apptd. Asst. Prof. of Classics.

GENERAL INFORMATION

Although most of the Staff are ecclesiastics of the Catholic Church, there are no religious tests for entrance or for degrees.

FACULTIES. Arts; Science. Every member of the Science Faculty is also a member of that of Arts. There is a Dept. of Law.

DEGREES. B.A., M.A., B.L. (Letters); B.Sc.

TERMS, 1913–14. First term, Sept. 11 to Dec. 18; second, Jan. 8 to May 13.

COURSES AND EXAMINATIONS. Examns. are held quarterly, and a student's standing depends on his passing them. A 4 years course leads to the B.A. or B.L. or B.Sc. Candidates for admission to either course must pass a Matricn. examn. or have completed a High School course equal to the 3 years course of the St. Francis Xavier's High School. The compulsory subjects for the B.A. or B.L. are Latin, Engl., French or German, Apologetics, Maths., Phys., Philos., Hist., and Econ., and for the B.Sc. Engl., French, German, Maths., Physics, Apol., Chem., Philos., Econ. Among the elective subjects for the B.A. is Keltic. A special feature is daily attendance at lectures in Philos., which is obligatory during the last 3 years of the course for the B.A. or B.L. and the 2nd and 3rd years of the course for the B.Sc. Attendance at 90 per cent. of the lectures and class hours is compulsory in the B.A., B.L., and B.Sc. courses. The course in General Science is specially adapted to qualify students for employment as teachers of Science. A graduate in Arts who has shown special aptitude for Engl., Greek, Latin, or Maths. may enter for the M.A. examns. (Prelim. and Final). 20 hours a week for one year must be devoted to preparation for the M.A. examn., either in residence at the Univ. or

elsewhere. A graduate in Arts or Letters of any recognized Coll. or Univ. may be admitted to the course.

A student of the Arts course taking 4 *Law* subjects in the 3rd and 4th years and passing the prescribed examns. may after graduation be admitted to the 2nd year of the Dal. (Halifax) Law School. The Barristers' Soc. of N.S. also recognizes attendance at Law lectures by students of the 4th year of the Arts course. As regards *Engineering*, *see* Appendix VI (ii).

RESIDENCE. Undergraduate students must reside in the Coll. unless permitted by the Faculty to reside in the town.

WOMEN STUDENTS are admitted to the classes and degrees by special permission of the Faculty. They reside in Mount Saint Bernard's Ladies' College, Antigonish.

SCHOLARSHIPS OPEN TO GRADUATES. The Cameron (yearly interest on $10,500) and Divinity fund (interest on $1375).

The LIBRARY contains about 22,000 vols. Each alumnus is expected every year to contribute something to it or the Museum.

The SCIENCE HALL contains carpenters' and machine shops, foundry, drawing room, and Biol., Chem., Geol., and Phys. Labs.

PUBLICATIONS. The *Calendar*, issued in July, *gratis*; the *Xaverian*, monthly during term.

THE YEAR 1912-13

BENEFACTIONS. A movement has recently been started by the Alumni Assocn. to raise within the next few months the sum of $300,000 to increase the endowment of the Univ. The present endowment has been provided by voluntary contribution (*v. also* "New Buildings" *and* "Additions to Library").

UNIVERSITY EXTENSION. A series of lectures on Scientific Agric. has been given during the early spring in the country districts of Antigonish, Pictou, Cape Breton, and Inverness counties. Scientific farming has been begun on a large estate now owned by the Univ., which is under the direction of Prof. M. N. Tompkins.

NUMBER OF STUDENTS preparing for the Bachelorship, 165 (including 20 women); occasional, 45; Bachelors preparing for the M.A., 10; grads. studying special subjects in the U.S.A., 2; in Rome, 2; in Ox., 1.

HONORARY DEGREES CONFERRED. *D.Litt.*—Alexander Fraser, LL.D., F.S.A. (Scot.), of Toronto. *M.A.*—Thomas Hanrahan, of Newfoundland.

OTHER DEGREES. M.A., 2 ; B.A., 9 ; B.L., 1.

NEW BUILDINGS. A Science building equipped for Biol., Chem., Geol., Engin., and Physics ; a summer residence on the Gulf of St. Lawrence for the use of Profs. ; a Univ. Chapel ; a gas plant for the Labs. All these were presented to the Univ. by various donors.

ADDITIONS TO LIBRARY. A bequest by the late J. F. Waters, LL.D., of Ottawa, of 3000 vols., chiefly Engl. Lit. and Hist. ; another by the late Rt. Rev. J. Cameron, D.D., Ph.D., Bishop of Antigonish, of over 6000 vols., including many rare editions.

UNIVERSITY OF SASKATCHEWAN, SASKATOON

[Established by Act of the Provincial Legislature, April 3, 1907.]

VISITOR	Hon. G. W. BROWN, Lieut.-Governor.
CHANCELLOR	Hon. E. L. WETMORE, LL.D.
PRESIDENT	W. C. MURRAY, M.A., LL.D.
REGISTRAR	A. R. WEIR, B.A.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE

Animal Husbandry [Prof.

RUTHERFORD, W. J., B.S.A. TOR.

Agric. Engineering

GREIG, A. R., B.SC. MCG. Prof.

SMITH, J. MACG., B.S.A. MANIT. Asst. Prof.

Field Husbandry

BRACKEN, J., B.S.A. TOR. Prof.

CUTLER, G. H., B.S.A. TOR. Prof.

Poultry Husbandry [Prof.

BAKER, R. K., B.A. MANIT. Asst.

ANTHROPOLOGY

MORICE, A. G., O.M.I., M.A. Lectr.

BIOLOGY

THOMPSON, R. P., B.A. TOR., PH.D. HARV. Prof.

Natural History

WILLING, T. N. Asst. Prof.

CHEMISTRY

MACLAURIN, R. D., M.A. MCM., PH.D. HARV. Prof.

BURGESS, L. L., B.SC. DAL., PH.D. HARV. Asst. Prof.

ECONOMICS [Prof.

GRAY, L. C., PH.D. WISC. Engen

EDUCATION

MURRAY, W. C., M.A. EDIN., LL.D. QU. Lectr.

SNELL, J. A., M.A. QU. Lectr.

WEIR, G. M., B.A. MCG. Lectr.

ENGINEERING, Civil

MACKENZIE, C. J., B.E. DAL. Lectr.

HISTORY [Prof.

OLIVER, E. H., M.A. TOR., PH.D. COL.

LANGUAGES and Literature

English

BATEMAN, R. J., M.A. T.C.D. Prof.

WEIR, A. R., B.A. SASK. Lectr.

French

MACDONALD, J. A., B.A. LAV., M.A. HARV. Asst. Prof.

German

EATON, J. W., M.A. T.C.D. Asst. Prof.

Greek

BREHAUT, L., B.A., B.SC. OX. Prof.

Hebrew

MUNRO, M. F., M.A., B.D. QU. Lectr.

Latin

SULLIVAN, W. G., M.A. T.C.D. Prof.

LAW

MOXON, A., B.A., B.C.L. OX. Prof.

MACKAY, I. A., PH.D. CORN. Prof.

SHANNON, R. W., M.A. QU. Lectr.

MCGUIRE, HON. T. H., LL.D. Lectr.

MACLEAN, D., LL.B. DAL. Lectr.

MACKENZIE, P. E., LL.B. TOR. Lectr.

MATHEMATICS [Prof.
LING, G. H., M.A. TOR., PH.D. COL.

PHILOSOPHY
MACKAY, I. A., PH.D. CORN. Prof.
BREHAUT, L. L., B.SC. OX. Prof.

PHYSICS [Prof.
HOGG, J. L., M.A. TOR., PH.D. HARV.
HENNINGS, A. E., M.A. CHIC. Asst. Prof.

VETERINARY SCIENCE
WRIGHT, N., V.S. Lectr.

EXTENSION WORK
GREENWAY, S. E. Director.

WOMEN'S WORK
DE LURY, ABIGAIL Director.

CHANGES IN STAFF

Baker, R. K., appointed Asst. Prof. of Poultry Husbandry.
Brehaut, L., formerly Lectr. at Manc., apptd. Prof. of Greek.
Burgess, L. L., formerly Instr. at Illinois, apptd. Asst. Prof. of Chem.
Cutler, G. H., formerly Lectr. at Macdonald Coll., apptd. Prof. of Field Husbandry.
De Lury, A., apptd. Director of Women's Work.
Eaton, J. W., formerly Lectr. at Queen's, apptd. Asst. Prof. of German.
Gray, L. C., formerly Instr. at Wisc., apptd. Prof. of Econ.
Hennings, A. E., formerly Asst. at Chic., apptd. Asst. Prof. of Phys.
Mackay, I. A., apptd. Prof. of Law.
Mackenzie, C. J., apptd. Lectr. in Engin.
Moxon, A., apptd. Prof. of Law.
Oliver, E. H., Prof. of Hist. and Econ., resigned on apptmt. to the Presb. Theol. Coll.
Shannon, R. W., apptd. Lectr. in Law.
Smith, J. MacG., apptd. Asst. Prof. of Agric. Engin.
Thompson, R. P., formerly Sheldon Travelling Fellow Harv., apptd. Prof. of Biol.
Weir, A. R., apptd. Registrar.

GENERAL INFORMATION

The Univ. is supported by and subject to the control of the Province. Its maintenance is partially provided for by an assignment of one-third of the succession duties and 10 per cent. of the supplementary Revenue Fund and by Legislative Grants. The site, buildings, and equipment have cost the Provincial Govt. $1,350,000.

The site comprises 1333 acres, of which 293, with a river frontage of half a mile, have been set apart for a campus. It is proposed to lease sites of from 3 to 5 acres on the campus to Affiliated Colls. at a nominal rental. Three sites have been granted—one to Emmanuel Coll., one to the Presbyterian Hall, and one to the City Hospital.

The minimum age for ADMISSION to Univ. courses is 16.

FACULTIES, &c. A Faculty and College of Arts and Science; a Faculty and College of Agriculture; a Faculty and College of Law; and a Department of Engineering.

TERMS. The academic year opens the 3rd Tues. of Sept. (16.9.13) and closes the 1st Thurs. in May (7.5.14). In Arts, Science, and Law there are Fall and Winter terms, divided by Christmas holidays, beginning Dec. 22 and ending Jan. 4. In Agric. classes begin on the Tues. nearest Nov. 1 (4.11.13) and close with the Thurs. nearest April 1.

DEGREES. Arts and Science—B.A., M.A.; B.Sc., M.Sc; Agric.—B.S.A.; Law—LL.B. Other degrees also are provided for by Statute. The Univ. Act reserves for this Univ. the sole right to confer degrees in the Province, except in Theol.

ARTS AND SCIENCE. *Dean*—Prof. Ling. The course for the B.A. degree covers 4 years for candidates who have passed the Junior Matriculation. The Senior admits to the 2nd year of the course. Matriculation examns. are held by the Education Dept. in July and by the Univ. in Sept. At the end of the 2nd year students who have shown special aptitude may be permitted by the Faculty to take one of the Special courses leading to the B.A. with Honours. A degree "with distinction" is granted to students attaining high standing in the last three years of the general course. Combined courses are being arranged for to enable Theol. or Law students to take the B.A. and a Theol. or Law degree in 6 years.

The Dept. of Educn. recognizes the 1st year and 1st and 2nd year courses in Arts and Science as grounds of exemption from examn. in most of the subjects for the Teachers' Certif. of the 2nd and 1st class respectively. Students are required to attend at 90 per cent. of the lectures of any course entered.

AGRICULTURE. *Dean*—Prof. Rutherford. In 1910 the educational work of the Provincial Dept. of Agric. was transferred to the Univ. The general course for the B.S.A. will cover 4 years, and is intended primarily for investigators, teachers, and leaders. It will be organized as soon as there is sufficient demand for it. At present a 3 years course leading to the "Associateship in Agric." is provided for young men intending to be farmers (*v. infra*, "Univ. Extension").

RESIDENTIAL FACILITIES. There is a Hall of Residence with accommodation for 90 men and 30 women students. Sites in the campus have been allotted for Emmanuel Coll. and the Presbyterian Hall. Students not residing with relatives or friends or in the Univ. buildings are required to reside in approved lodging-houses.

SCHOLARSHIPS FOR GRADUATES. One, the Copland, of $100 for one year awarded each year to the most distinguished student taking the B.A. or B.Sc. with Honours and not holding another scholarship. One, the MacMillan, of $600 for one year to a distinguished student in Phys. A Travelling Scholarship in Agric., given by the Lieut.-Govr.

LABORATORIES in Chem., in Phys., in Biol. The Agric. College *Farm* covers 880 acres and the Experiment Field 140 acres in addition. The Lab. of Agric. Engin. includes accommodation for blacksmithing, concrete work, gasolene and steam-engine operation, woodworking, pipe-fitting, sheet-metal working, pumping machinery, &c. ; exhibition of farm implements ; slaughtering, cooling, storing, cutting, curing, &c. Horse, cattle, swine, and poultry stock breeding is carried on.

UNIVERSITY EXTENSION. Short courses in Traction Engin. and Home Economics are provided at local centres. The Agric. Coll. issues bulletins for farmers, provides itinerant lecturers, and organizes fairs and shows. A convention in the winter of about a week's duration is held for instruction of farmers and women in farming and domestic economy.

PUBLICATIONS. The *Calendar*, pubd. in April ; *Agric. Bulletins* ; the *College Paper*.

AFFILIATED COLLEGES

EMMANUEL COLLEGE, estabd. in 1879 as a Training Coll. for native helpers, was transferred by the Diocese of Sask. from Prince Albert to Saskatoon in 1909. Temporary buildings have been erected near the Univ. grounds. *Principal*—G. E. Lloyd, M.A., Archdeacon, Prof. of *Syst. Theol.* Other Profs.(*) and Lectrs. : Broadbent, H. S., M.A. Ox. (*Old Test.*) ; Collier, P. F., M.A., M.A. Tor. (*Church Hist.*) ; Dewndey, A. D., B.A. Tor. (*Apol.*) ; * Ferguson, W. A., M.A. Ox. (*New Test.*) ; *Tuckey, J., M.A. T.C.D. (*Patristics and Liturgics*). The Coll. provides courses leading to the Testamur ; to the Lic. in Theol. ; and to the B.Th.

ST. CHAD'S, Regina, for Divinity students (Church of Eng.). *Principal*—Ven. G. N. Dobie, D.D. Manc. *Assistant*—R. J. Morrice, M.A. Camb.

PRESBYTERIAN THEOLOGICAL COLLEGE, Saskatoon. *Principal*—E. H. Oliver, M.A. Tor., Ph.D. Col.

PROVINCIAL NORMAL SCHOOLS, Regina. *Principal*—R. A. Wilson, Ph.D. *Vice-Principal*—C. Nivins, B.A.

SASKATOON. *Principal*—J. A. Snell, M.A. *Other Teachers* : G. M. Weir, B.A. ; A. S. Rose, B.A. ; Miss E. E. Rankin.

COLLEGIATE INSTITUTES. The Principals are : MOOSE JAW—J. K. Colling, B.A. ; PRINCE ALBERT—G. E. Ellis, M.A. ; REGINA—N. McMurchy, B.A. ; SASKATOON—A. J. Mather, B.A.

THE INST. OF CHARTERED ACCOUNTANTS, THE ARCHITECTURAL ASSOCN., and THE PHARMACEUTICAL ASSOCN. are affiliated in such a

way as to give the Univ. some control over examns. admitting to these professions.

THE YEAR 1912–13. *Benefactions Received.* $5000 p.a. for a Research Professorship; $600 p.a. for a scholarship in Phys.; Travelling Scholarship in Agriculture; one-half of Sask. share of Dominion grant in aid of Agric., *i.e.* $34,000. *Special Event.* Opening of new buildings by Hon. W. Scott, Premier of Saskatchewan. *New Departments.* A Faculty of Law has been established, and the first 2 years of a course in Civil Engin. organized. *Number of Students.* In Arts, 178 (including 33 women); Agric., 64; total, 242. *Degrees Granted.* B.A., 20; B.Sc., 1. *Additions to Buildings and Equipment* cost about $350,000. *Additions to List of Affiliated Institns.* Archit. and Pharm. Assocns. (*v. supra*).

THE UNIVERSITY OF SHEFFIELD

[Incorporated by Royal Charter dated May 31, 1905. Univ. Coll. of Sheffield, constituted by Royal Charter dated May 11, 1897, was merged in the Univ. by the Univ. of Sheffield Act, 1905.]

VISITOR	HIS MAJESTY THE KING.
CHANCELLOR	His Grace the DUKE OF NORFOLK, E.M., K.G., Litt.D.
PRO-CHANCELLORS	GEORGE FRANKLIN, Litt.D., J.P. HENRY KENYON STEPHENSON, J.P.
VICE-CHANCELLOR	H. A. L. FISHER, M.A., LL.D., F.B.A.
TREASURER	A. J. HOBSON, J.P.
REGISTRAR	W. M. GIBBONS, M.A.
LIBRARIAN	A. P. HUNT, B.A.

PROFESSORS, LECTURERS, ETC.

ACCOUNTING

SHUTTLEWORTH, T. E., B.A. LOND., F.C.A. — Lectr.

ANATOMY

PATTEN, C. J., M.A., M.D., SC.D. DUB. — A. Jackson Prof.

NEILD, H., M.B., CH.B. LIV. — Demr.

WITTS, MISS S. M. V., M.D. LOND. — Lady Tutor.

SCOTT, G. H., M.R.C.S., L.R.C.P. — Hon. Demr.

FINCH, E. F., M.B., CH.B. SHEFF., M.D., B.S. LOND., F.R.C.S. — Hon. Demr.

RECKLESS, P. A., F.R.C.S. — ,,

ARCHITECTURE

PURCHON, W. S., A.R.I.B.A. — Lectr.

JENKINSON, J. M., A.R.I.B.A. — Asst. Lectr.

Archit. Ornament — [Instrs.

JAHN, A. C. C., A.R.C.A., AND STAFF OF TECH. SCHOOL OF ART

Hon. Lectrs. for Evening Courses

Engl. Mediæval Archit.

INNOCENT, C. F., A.R.I.B.A.

WIGFULL, J. R., A.R.I.B.A.

MITCHELL-WITHERS, J. B., F.R.I.B.A.

Italian Archit.

PATERSON, H. L., A.R.I.B.A.

BIOLOGY

THE PROF. OF *Zool.* — Prof.

BOTANY — [Lectr.

BENTLEY, B. H., M.A. OX., F.L.S.

BARTLETT, A. W., M.A. CAMB., B.SC. LOND., F.L.S. — Asst. Lectr. and Demr.

CHEMISTRY (v. also *Physiol.*)

WYNNE, W. P., D.SC. LOND., F.R.S., F.I.C. — Firth Prof.

TURNER, W. E. S., D.SC. LOND., M.SC. BIRM. — Lectr. and Demr.

JARRARD, W. J., B.SC. LOND. — Asst. Lectr. and Demr.

YOUNG, C. R., B.SC. LOND. Demr.
KENNER, J., PH.D. HEID., B.SC. LOND. Research Asst. & Demr.
Applied Chemistry [Prof.
O'SHEA, L. T., M.SC., B.SC. LOND.
FINDLEY, A. E., B.SC. BIRM. Lectr.

DENTISTRY
D. Surgery and Path. [Lectr.
MORDAUNT, F. G., L.D.S. ENG.
D. Anat and Physiol.
LAW, W. J., L.D.S. ENG. (Demr. *Dent. Histol.*) Lectr.
D. Mechanics
MORRIS, H. J., L.D.S. ENG. Lectr.
D. Materia Medica
STOKES, P. S., L.D.S. ENG. Lectr.
D. Metallurgy [Lectrs.
THE SENR. LECTRS. IN *Metall.*
D. Bacteriology
(Instruction given by Prof. and Demrs. of *Path.*)

ECONOMICS
KNOOP, D., M.A. MANC. Lectr.
ASHTON, T. S., M.A. MANC. Asst. Lectr.

EDUCATION
GREEN, J. A., M.A. SHEFF., B.A. LOND. Prof.
TAYLOR, NINA G. R., B.A. DUB. Lectr.
BIRCHENOUGH, C., M.A. OX. Lectr.
BONE, WOUTRINA A. Lectr.

ENGINEERING, Civ., Elec., and Mech.
RIPPER, W., D.ENG., HON. D.SC.ENG. BRIS., M.I.C.E. Prof.
Civil Engineering [Senr. Lectr.
HUSBAND, J., B.ENG., A.M.I.C.E., M.S.C.E. FRANCE, A.R.C.SC.
Elec. Engin. [Senr. Lectr.
CRAPPER, E. H., B.ENG., M.I.E.E.
Mechanical Engin.
BOULDEN, F., B.ENG., B.SC. LOND., A.M.I.C.E. Senr. Lectr.
BURLEY, G. W. Lectr.
HIBBINS, W. G., B.ENG., B.SC. LOND., A.M.I.C.E. Lectr.
KERSHAW, J. W., B.ENG., M.SC. MANC. Lectr.
WAITE, C. W. Lectr.
HAINSWORTH, C. H., A.M.I.E.E. Asst. Lectr.
GULLIVER, G. C. Demr.
STANFIELD, G., M.ENG., B.SC. LOND. Demr.
BOWLING, G. S., B.SC.ENG. LOND. ,,

GEOGRAPHY
BROWN, R. N. RUDMOSE, D.SC. ABERD. Lectr.

GEOLOGY [Sorby Prof.
FEARNSIDES, W. G., M.A. CAMB.

HISTORY, Ancient and Modern
APPLETON, H. W., M.A. OX. Prof.
CURTIS, E., M.A. OX. Lectr.
THOMAS, A. H., M.A. CAMB. Lectr.

HYGIENE, v. *Pub. Health*

LANGUAGES and Literature
English Lang. and Lit.
SMITH, G. C. MOORE, LITT.D. CAMB., HON. PH.D. LOUV. Prof.
JONES, J. D., B.A. LOND., PH.D. BERL. Lectr.
French
BAKER, A. T., M.A. CAMB., PH.D. HEID. Prof.
VACANT Lectr.
German
FREUND, J., M.A. SHEFF., PH.D. MARB. Prof.
Greek [Lectr.
FORSTER, E. S., M.A. OX., F.S.A.
Latin [Firth Prof.
SUMMERS, W. C., M.A. CAMB.
SLEEMAN, J. H., M.A. CAMB. Lectr.

LAW
TROTTER, W. F., M.A., LL.M. CAMB., BAR.-AT-LAW, AND ADV. OF THE SCOT. BAR Prof.
CAPORN, A. C., B.A., LL.B. CAMB., BAR.-AT-LAW Lectr.

Public and Common Law [Lectr.
BATT, F. R., LL.M. WAL., SOLICITOR

MATHEMATICS
LEAHY, A. H., M.A. CAMB. Town Trust Prof.
HOLDEN, A., M.A. CAMB. (Tutor) Asst. Lectr.
WILTON, J. R., M.A. CAMB., B.SC. ADEL. Asst. Lectr.
THOMPSON, R. S. Engin. Dept. Lectr.
Geometry
LIVENS, G. H., B.A. CAMB. Lectr.

MEDICINE and Surgery
Anæsthetics [Lectrs.
THE ANÆSTHETISTS OF THE ROY. INFIRMARY AND ROY. HOSPL.
Diseases of Children
LEADER, H., M.B. LOND., M.R.C.S., L.R.C.P. Lectr.
Dis. of Ear, Nose, and Throat
WILKINSON, G., B.A., M.B., B.C. CAMB., F.R.C.S. Lectr.
Diseases, Infectious
WILLIAMS, E. H., M.D. BRUS., M.R.C.S., L.R.C.P., D.P.H. Lectr.
Diseases, Mental
VINCENT, W., M.B., B.S. DURH., M.R.C.S., L.R.C.P. Lectr.
Diseases of Women [Lectr.
PHILIPS, M. H., M.B. LOND., F.R.C.S.
Forensic Medicine
NAISH, A. E., M.A., M.B., B.C. CAMB., M.R.C.P. Lectr.
Gynæcology, v. *Obst.*
Mat. Med., Pharmacol., and Therap. (v. also *Physiol.*)
ADAMS, E. W., M.D. SHEFF. AND LOND. Lectr.
Medicine
BURGESS, D., M.A., M.B. CAMB., F.R.C.P. Prof.
Medicine, Practical
HALL, A. J., M.A., M.D. CAMB., F.R.C.P. Lectr.
Medicine, Clinical
BARNES, A. E., M.B., CH.B., M.B. LOND., M.R.C.P. Tutor.
Midwifery
BARBER, P. E., B.A. CAMB., M.R.C.S., L.R.C.P. Prof.
Obst. and Gynæc., Clinical
KING, W. W., M.B., CH.B. BRIS., F.R.C.S. EDIN. Tutor.
Ophthalmology
POOLEY, G. H., B.A. CAMB., F.R.C.S. ENG. AND EDIN. Lectr.
Pathology [Joseph Hunter Prof.
DEAN, H. R., M.A., M.D. OX., F.R.C.P.
CONNELL, A., F.R.C.S. EDIN. Asst. Lectr.
HENRY, H. G. M., M.D., B.S. LOND. Senr. Demr.
DIBLE, J. H., M.B., CH.B. GLAS. Junr. Demr.
Sanitation, Practical
SCURFIELD, H., M.D. EDIN., D.P.H. CAMB. Lectr.
Surgery
WHITE, S., M.D., M.CH. R.U.I., F.R.C.S. Prof.
CONNELL, A., F.R.C.S. EDIN. Lectr.
Surgery, Clinical
FINCH, E. F., M.B., CH.B., M.D., B.S. LOND., F.R.C.S. Tutor.
Surgery, Operative
SIMPSON, G., F.R.C.S. Lectr.
Surgery, Practical
CUFF, A., B.A., M.B., B.C. CAMB., F.R.C.S. Lectr.
Vaccination
NEWTON, D. G., M.B., C.M., F.R.C.S. EDIN. Lectr.

METALLURGY
ARNOLD, J. O., D.MET., F.R.S. Prof.
KNOWLES, F. K., B.MET. Senr. Lectr.
IBBOTSON, F., B.MET., B.SC. LOND. Senr. Lectr.
WREAKS, J. H., B.MET. Lectr.
AITCHISON, L., M.MET. Demr.
THOMPSON, F. C., M.MET., B.SC. LOND. Demr.
COLVER-GLAUERT, E., DR.ING. CHARL. Demr.
Electro-Metallurgy
BARCLAY, W. R., A.M.I.E.E. Lectr.

Non-Ferrous Metall.

BROOK, G. B. Lectr.

CONDRUP, C. O., B.SC. Demr.

MINING

ARMSTRONG, F. E., M.SC. MANC., A.M.I.C.E. Prof.

OXLEY, F., F.G.S. Lectr.

MUSIC

COWARD, H., MUS.DOC. OX. Lectr.

PHILOSOPHY

LOVEDAY, T., M.A. OX. Lectr.

PHYSICS [Prof.

HICKS, W. M., SC.D. CAMB., D.SC. SHEFF., D.SC. MANC., F.R.S.

MILNER, S. R., D.SC. LOND. AND BRIS. Lectr. and Demr.

BEATTY, R. T., B.A. CAMB., M.A. R.U.I., D.SC. BELF. Asst. Lectr. and Demr.

SOUTHERNS, L., B.A. CAMB., B.SC. LOND. Junr. Lectr. and Demr.

PHYSIOLOGY

MACDONALD, J. S., B.A. CAMB., L.R.C.S., L.R.C.P. EDIN. Prof.

Chemical Physiol.

EAVES, ELIZABETH C., B.SC. LOND. (Demr. in *P.*) Lectr.

Exper. Physiol. and Pharmacol.

DUFFIELD, F. A., M.B., CH.B. EDIN. Demr.

PUBLIC HEALTH

WILLIAMS, R. P., M.D. LOND., D.P.H. OX. Prof.

ZOOLOGY

DENNY, A., M.SC., F.L.S. Prof.

EVANS, T. J., M.A. OX. Lectr. and Demr.

CHANGES IN STAFF

Armstrong, F. E., Engineer to Askern Colliery Co., apptd. *vice* Hardwick.

Ashton, T. S., apptd. *vice* Baxter.

Batt, F. R., Lectr. at Aberystwyth, apptd. Lectr. in Public and Common Law.*

Baxter, J., M.A., Asst. Lectr. in Econ., resigned on apptmt. as Lectr. at the Khedivial School of Law, Cairo.

Beattie, J. M., Prof. of Pathol., resigned on apptmt. as Prof. of Bact. in Liv.

Boillot, F., Lectr. in French, apptd. 2nd Lectr. in Bristol.

Brook, G. B., apptd. Lectr. in Non-Ferrous Metall.

Burley, G. W., Asst. Lectr. in Engin., apptd. Lectr.

Cocking, Dr. W. T., Emer. Prof. of Mat. Med., &c., deceased.

Colver-Glauert, E., apptd. Demr. in Metall.

Condrup, C. O., apptd. Demr. in Non-Ferrous Metall.*

Dean, H. R., Asst. Bacteriologist to Lister Inst., apptd. *vice* Beattie.

Dible, J. H., apptd. *vice* Douglas.

Douglas, Mackenzie, Junr. Demr. in Path., resigned.

Eliot, Sir Charles, Vice-Chancellor, resigned to become Head of the new Univ. of Hong-Kong.

Fearnsides, W. G., Lectr. at Sid. Coll., Camb., apptd. Prof. of Geol.*

Finch, E. F., apptd. Hon. Demr. in Anat. and Tutor in Clin. Surg.

Fisher, H. A. L., of New Coll., Ox., apptd. Vice-Chancellor.

* New appointment.

Hardwick, F. W., M.A., Prof. of Mining, retired, and was made Emer. Prof.

Johnston, Miss K. L., Lectr. in Educn., resigned on apptmt. as Principal of Maria Grey Training Coll., Lond.

Kendall, P. F., Asst. Curator, Zoological Museum, resigned on apptmt. as Lectr. in S.E. Agric. Coll., Wye.

Leader, H., apptd. Lectr. in Diseases of Children.*

Mordaunt, F. G., apptd. Lectr. in Dental Surg. and Pathol.

Nield, H., Asst. House Physicn., Shef. Roy. Inf., apptd. Demr. in Anat.

Reckless, P. A., apptd. Hon. Demr. in Anat.

Robinson, J., M.Sc., Ph.D., Junr. Lectr. and Demr. in Physics, resigned on apptmt. as Lectr. in E. Lond. Coll.

Southerns, L., Chief Asst. at Eskdalemuir Obs., apptd. *vice* Robinson.

Swann, W. F. G., D.Sc., Asst. Lectr. and Demr. in Phys., resigned on apptmt. as Physicist in Carnegie Inst., Washington, U.S.A.

Taylor, Miss N. G. R., Lectr. in Educn. at St. Mary's Coll., Paddington, apptd. *vice* Johnston.

Wilson, A. Garrick, B.A., M.B., M.C., F.R.C.S., Tutor in Clin. Surg., resigned.

Witts, Miss S. M. V., apptd. Lady Tutor in Anat.*

GENERAL INFORMATION

Faculties. Arts, Pure Science, Law, Medicine, Applied Science. Music is included in the Faculty of Arts, Education in Arts and Pure Science, Public Health in Medicine. While all necessary provision is made for teaching and research in the other Faculties, special efforts have been concentrated upon Applied Science, and especially upon its Depts. of Engin. and Iron and Steel Metall. This pre-eminence is in accordance with the terms of Art. 13 of the Charter of 1905 defining the functions of the Univ. "Such instruction . . . as may be of service to persons engaged in . . . Educn., Commerce, Engin., Metall., Mining, or in any other industries or artistic pursuits of the city of Sheffield and the adjacent counties and districts. Facilities for the prosecution of original research in . . . especially the applications of Science."

Terms 1913–14. Michs. begins Oct. 1 1913; Lent, Jan. 7; Easter, April 20.

Matriculation. The examn. is conducted by the Joint Board (*v.* Appendix III).

Degrees, &c. Arts—B.A., M.A., Litt.D. Pure Science—B.Sc., M.Sc., D.Sc. Law—LL.B., LL.D. Medicine—M.B., Ch.B., M.D., Ch.M. Applied Science—B.Eng., M.Eng., D.Eng., B.Met. (Metallurgy), M.Met., D.Met.

* New appointment.

Diplomas in Archit., Domestic Science, Educn., Mining, Mod. Lang. Teaching, Pub. Health.

Courses and Examinations. The Charter provides that at least one external and independent examiner shall be appointed for each subject or group forming part of the course for Univ. Degrees. All candidates for degrees are required to attend at this Univ. or some recognized Univ. or Coll. approved courses during not less than 3 yrs. subsequent to Matriculation. The Univ. of Caen has been recognized in Arts; the Cape Univ. and Univ. Coll., Nott., for the first M.B. A grant of £6 was made by the Council to each student spending a term at Caen in 1913.

Arts. Candidates for the ordinary B.A. must take at the Interm. examn. Engl., Latin, 1 other lang., Hist. (Anc. or Mod.) or Econ., and 1 other subject. For the ordinary Final B.A. candidates must offer either Latin or Maths., and may select from the following: Greek, Hellenistic Greek, Engl., French, Ger., Anc. Hist., Mod. Hist., Eccl. Hist., Philos., Econ., Educn. Candidates must take either 2 primary and 3 secondary subjects, or 3 primary and 1 secondary. Primary subjects must be studied for 2 yrs. each and secondary subjects for 1 yr. each. The Honours schools are Class., Engl., Hist., Maths., Mod. Langs. and Lits., Philos., Econ., Archit. Candidates for Honours have to pass an Interm. examn. in 5 subjects. The Archit. Honours course involves 5 yrs. of study, the first 3 being wholly at the Univ. and the last 2 in the office of an architect, with half a day per week and evening lectures in the Univ.

Pure Science. At the Interm. examn. for the ordinary B.Sc. degree 3 of the following must be taken: Pure Maths., Applied Maths., Phys., Chem., Zool., Bot. At the Final, 3 must be selected from a list which includes also Physiol., Geol., Geog., and Educn. The Honours schools are Maths., Phys., Chem., Zool., Bot., Physiol.

Law. The courses are arranged so as to enable the subjects prescribed for the Interm. examn. for the LL.B. and that of the Law Soc. to be taken in one session, and those for the Final LL.B. and the final examn. of the Law Soc. in 2 sessions. A LL.B. of 5 yrs. standing who has distinguished himself by special Research or learning in Law may be admitted LL.D.

Medicine. At least 3 of the requisite 5 yrs. of Med. study must be passed in the Univ. Candidates for the final examn. must, in addition to meeting the requirements common to all Schools of Med. recognized by the Genl. Med. Council and attending courses in the Univ., have attended the Med. and Surg. practice of a recognized Hospl. during 2 yrs. and 3 mos. after passing the 2nd examn., acted as Clin. Clerk for 6 mos., as Dresser for 6 mos., and as Post-mortem Clerk for 3 mos., attended during 12 mos. demonstrations in a Hospl. Post-mortem theatre, received Clin. instruction during 3 mos. in Dis.

of Women in a recognized Hospl., attended during 3 mos. the practice of a recognized (1) Ophth. Hospl. or ward ; (2) Hosp. for Infec. Dis. ; (3) Hosp. or Asylum for Ment. Dis., and acquired proficiency in Vaccin. and in Anæsthetics. For admission as M.D. a thesis must be presented and an examn. may be undergone. A candidate for the Ch.M. must have held for 6 mos. after passing for the M.B., Ch.B. a Surg. apptmt. in a public hospl. Neither the M.D. nor the Ch.M. may be taken within a year after passing for the M.B., Ch.B. *Hospitals* available for clinics : Royal Infirmary (326 beds), Royal Hospl. (191), Jessop Hospl. for Women (80), City Fever Hospls. (547), South Yorks Asylum (1610), Children's Hospl. (60 beds).

Courses and examns. in Chem., Phys., and Zool. for the degree of B.Sc. in Agric. of the Univ. of the Cape of Good Hope, exempt from examn. in corresponding subjects for the 1st M.B., Ch.B. examn. (Part I) if a standard of 50 per cent. was attained in the B.Sc. examn. Courses in Chem., Phys., and Zool. at the Univ. Coll. of Nottingham qualify for admission to Part I of the 1st M.B., Ch.B.

The course for the Diploma in *Pub. Health* covers at least 9 mos., including 6 mos. in the Univ. Before entering for the examn. a candidate must have held for not less than 12 mos. a registrable qualification in Med., Surg., and Midwifery. The Course for the *Dental* Diploma covers 4 yrs. The student must attend the Dent. Dept. of the Roy. Hosp. during 2 yrs., and in 1st and 2nd winter sessions both genl. hospl. practice and lectures in Clin. Surg.

Applied Science. The min. age for admission to the courses is 16, and students who do not enter for a degree must pass an entrance examn. unless over 20 yrs. of age or exempted on some other ground. The Honours schools are Engin. (Mech., Elec., Civ., Chem., and Mining) and Metall.

Engineering. For the Associateship in Engin. a 3 yrs. full-time course is required, and in tech. subjects the course is the same as for the degree and is up to the standard of the examns. for the A.M.I.C.E. and A.M.I.M.E. All Engin. students take the same course for the first 2 yrs., specialization taking place thereafter. Special 3-year courses of 6 mos. p.a. are provided by arrangement with manufacturers for their apprentices, leading to a certif.

Metallurgy. A 3 yrs. full-time course leads to the B.Met. degree or (for students who have not passed the Matricn. examn.) to the Associateship in Metall. A 3 yrs. full-time course is provided in Non-ferrous Metall. Students employed in approved Metall. works or Labs. during the day may, if they have completed 1 yr.'s attendance as day students for the Interm. examn., qualify for admission to the Final by 4 yrs. of evening courses. They must be at least 23 yrs. of age at the Final examn.

Mining. A 3 yrs. course leads to the B.Eng. in Mining. A 4 yrs. course, requiring attendance at the Univ. for 2 days a week, the

remainder of the week being spent at a colliery, leads to the Diploma in Mining. The period may be reduced to 3 yrs. by extra attendance at the Univ. This course has been approved by the Home Secretary for the purposes of the Manager's Certif. under the Coal Mines Act, 1911. A course for Saturday afternoons extending over 2 yrs. meets the requirements of the examn. for the Colliery Manager's 1st Class Certif. A similar course is given at Derby. Other Saturday afternoon classes are held for teachers in Coal-mining. A course in Electricity applied to Mining is given. Lectures and Lab. courses are given in Chem. in its application to fuel, mine gases, coke manufacture, and explosives. Courses in Surveying are also given.

Training of Teachers. The course for the Diploma in Educn. covers 1 yr. and is open to grads. of Brit. Univs. and students with other equivalent qualifications. The course for the Diploma in Mod. Lang. teaching covers 1 yr., and is open to grads. in Arts and such persons as present evidence of a knowledge of the lang. of a standard equal to that required in the same lang. in the B.A. exam. The Univ. Training Coll. receives about 35 students each year. These may enter as 4 yrs., 3 yrs., or (graduate) 1 yr. students.

The Domestic Science Diploma course covers 2 yrs., the scientific portion being taken at the Univ. and the technical at the Sheff. Training Coll. of Dom. Sc. (*Principal*, Miss F. Tilney Bassett). Admission to the course is dependent on having passed the Matricn. or an equivalent examn. A 1 yr. course in Science and Educn. intended for teachers holding 1st Class Diplomas from a recognized Coll. of Dom. Sc. is provided, leading to a certif.

Higher Degrees. The M.A. degree is open to (1) a B.A. of this Univ. of 1 yr.'s standing if he graduated in an Honours School or attended an approved course in the Univ. for 1 yr. after graduation and either passed an examn. or presented a satisfactory thesis; (2) a B.A. of this Univ. of 3 yrs. standing on passing an examn. or presenting a satisfactory thesis; (3) a student who, after having passed the Final examn. of any Univ. of the United Kingdom for a degree in Arts and pursued a course of study for 3 yrs. in a recognized institn., has spent 2 yrs. in advanced study or research in the Univ. in any of the subjects of the Faculty; (4) a grad. in a Faculty other than Arts in this or any other Univ. of the U.K. who has pursued a course of study for 3 yrs. in a recognized institn., has spent not less than 3 yrs. in advanced study or research in the Univ., and has passed an approved examn. of Interm. standard in 3 subjects other than those of his advanced study or research. The M.Sc. is open to (1) a B.Sc. of this Univ. of 1 yr.'s standing if he graduated with Honours or passed an approved examn. after graduation or carried out an approved research and presented a thesis thereon; (2) grads. who, having passed the B.Sc. examn. of any Univ. of the U.K., studied for 2 yrs. at a recognized institn., and satisfied the Faculty as to his qualifications, has spent 2 yrs. in advanced study or research in the Univ. and presented a satisfactory thesis

The qualifications for the M.Eng. and M.Met. are parallel to (1) and (2) for the M.A.

The (1) Litt.D., (2) LL.D., (3) D.Sc., (4) D.Eng. or D.Met. are open respectively to a (1) M.A., (2) LL.B., (3) M.Sc., (4) Graduate of the Faculty, of at least 5 yrs. standing from date of admission as (1) B.A., (2) LL.B., (3) B.Sc., (4) Bachelor, who (1) is distinguished by contribution to learning, (2) is distinguished by special research or learning in Law, (3) and (4) has published in recognized journals or transactions a research of special merit.

For Ch.M., M.D., *v. supra*—"Medicine."

Scholarships, &c., for Graduates. The Sorby Research Fellowship (administered by the Royal Society) for research to be carried out in Sheff. Labs., about £500 p.a. for 5 yrs., renewable; Fredk. Clifford Scholarship, £50 for 2 yrs., open to grads. of the Univ. for research in the Univ.; Town Trustees' Fellowship, £75 for 1 yr., and the Mechanics Inst. Scholarship, £50 for 1 yr., renewable for a second; Linley Scholarship, £75 to £100 for 1 yr., awarded on the Final Degree examn. for research in Engin. or Metall. An 1851 Exhibn. Science Research Scholarship (£150 for 1 yr. renewable) is allotted to Sheffield.

Appointments. Statutes provide that Profs., Lectrs., and other officers shall vacate office after attaining the age of 65, unless requested by Council to continue in office for a period not exceeding 5 yrs.

Women. The Charter provides that women shall be eligible for any office in the Univ. and for membership of any of its constituent bodies, and all degrees and courses in the Univ. shall be open to women subject to conditions and regns.

Residential Facilities. Stephenson Hall, lately opened, is for Univ. students who are candidates for Holy Orders in the Church of England. (Students may prepare for any degree, but will all take Greek. After devoting 3 yrs. to the degree course they will spend a 4th in purely Theol. studies in the Hostel.) The Univ. Hostel for Women has accommodation for 20 students, and is recognized by the Board of Educn. as a residence for students of the Univ. Training Coll. Non-theol. students are admitted to Stephenson Hall if there are vacancies.

The Library contains about 38,000 vols. Med. students have access to the Sheffield Med.-Chir. Soc.'s Library.

Museums and Laboratories. Anat. and Anthrop., Pathol. (2000 specimens), Zool., and Bot. (including Econ. products). The Engin. Labs. have numerous engines of various types. There are three Electro-tech. Labs. and a central station equipment. Engines and apparatus are frequently changed for others of more modern type. The Metall. Labs. are fitted with the most modern apparatus for Metall. analysis and contain a complete pyrometric installation and

full equipment for the micrographic analysis of metals. The Applied Chem. Lab. is specially equipped for valuation and analysis of materials and products of coke and coal-gas manufacture. In conjunction with the Univ. of Leeds a small Zool. station has been instituted at Robin Hood's Bay.

OBSERVATORY. 6¼″ equatorial.

UNIVERSITY EXTENSION, &c. The external work includes Post-grad. Lectures, Tutorial Classes, Free Extension Lectures, Summer Schools, Lectures to Sunday-school Teachers, and Popular Lectures at the Univ. (*see under* "The Year 1912–13").

PUBLICATIONS. The *Calendar*, issued about Oct., in 2 vols., price 1s. each, cloth, 6d. paper covers (Vol. II contains examn. papers); *Floreamus*, a Univ. Chronicle, pubd. at the end of each term, annual subs. 1s. (3 vols., each covering 4 yrs., have been completed, and give a complete hist. of the Univ. Coll., with portraits, &c.); *Annual Report and Statement of Accts.*, issued in Nov.

THE YEAR 1912–13

BENEFACTIONS. £14,470, donations for the extension of the Coal-mining and Non-ferrous Metall. Depts.; the London Drapers' Company renewed for 5 yrs. their grant of £400 p.a. to the Engin. Dept.; £250 for endowment of "Thomas Woodcock Prize" for students in Bot., Bact., Physiol., or Zool.; £500 for endowment of "John Hall" Gold Medal in Path.; $50,000 bequest by Ezra H. Linley, of St. Louis, U.S.A., a native of Sheff., for the foundation of scholarships (applied to the establishment of 2 entrance and 1 post-grad.).

NEW DEPARTMENTS AND POSTS. The Dept. of Non-ferrous Metall. has been reorganized and considerably developed. A "Sorby" Chair of Geol. has been instituted and the teaching of this subject reorganized. Lectureships in Diseases of Children, Non-ferrous Metall., and Public and Common Law, a Lady Tutorship in Anat., and a Dem'rship in Non-ferrous Metall. have been created.

UNIVERSITY EXTENSION, &c. A course of Post-grad. Lectures in Bacteriology at Derby by the Prof. of Path. Five courses of Tutorial Classes in connexion with the Workers' Educnl. Assocn. (3 at Sheff., 1 at Parkgate, and 1 at Maltby). Courses in Railway Economics to Ry. employés at Sheffield and Derby. Two courses of Free Lectures at Hunter's Bar and Walkley. A Summer School of Geog. at Whitby under the direction of the Univs. of Leeds and Sheff.; 2 series of 6 Lectures each to members of the Sheff. Sunday-school Union on "Teaching." External Lectures in Mining at 2 centres in the W. Riding and at Derby. Twelve Popular Lectures on Sat. evenings at the Univ.

NUMBER OF STUDENTS. Full-time preparing for Bachelorship or Diploma examns., 290 (including 86 women); occasional, 522 (159 women); evening, 1624 (61 women); Bachelors preparing for Master's or Doctor's Degree, 8 (2 women); Masters and Doctors and other students (not being teachers) engaged in research, 16 (2 women); other post-grad. students, 69 (5 women); continuing study or research in Europe, 2.

DEGREES CONFERRED. M.A., 9 (including 3 women); B.A., 33 (21 women); M.Sc., 7 (1 woman); B.Sc., 10 (3 women); M.B., Ch.B., 3; D.Met., 3; B.Met., 4; B.Eng., 8.

CHANGES IN REGULATIONS. The superannuation scheme established by the Board of Educn. has been adopted by the Univ. An Honours degree in Archit. has been established in the Faculty of Arts, involving 5 yrs. of study partly in the Univ. and partly in an architect's office. Steps are being taken to obtain recognition for 1 yr. of legal study in the Univ. in lieu of 1 yr. in a solicitor's office.

ADDITIONS TO BUILDINGS. A new wing containing labs., workshops, and lecture-rooms for the Depts. of Metall. and Coal-mining has been brought into use. A central block for administration, &c., in the Dept. of Applied Science has been constructed. Considerable additions have been made to equipment for teaching and research in Path. and Bacteriology.

ADDITIONS TO AMENITIES. Important improvements at the athletics ground have been completed. The Stephenson Hostel has been established (*v. supra*, "Residential Facilities").

RELATIONS WITH OTHER INSTITUTIONS. Sheff. School of Art and Sheff. Training Coll. of Domestic Science, Leeds Univ. (*v. supra*, "Training of Teachers," "Domestic Science," "Museums," &c.).

ADDITIONS TO THE LIBRARY include many valuable early editions, some of the early part of the 16th century.

THE UNIVERSITY OF SYDNEY

[Incorporated by Act of the N.S.W. Legislature, 1850. This and the subsequent amending Acts were consolidated in the Univ. and Univ. Colls. Act, 1900, which was amended in 1902 and 1912.]

VISITOR	THE GOVERNOR OF NEW SOUTH WALES.
CHANCELLOR	Hon. Sir HENRY NORMAND MACLAURIN, Kt., M.A., M.D., LL.D.
VICE-CHANCELLOR	His Honour Judge BACKHOUSE, M.A.
REGISTRAR AND LIBRARIAN	H. E. BARFF, M.A.
TUTOR TO THE WOMEN STUDENTS	ISABEL M. FIDLER, B.A.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY

VANE, H. D., F.C.P.A. Lectr.

AGRICULTURE (v. also *Forestry*)

WATT, R. D., M.A., B.SC. Prof.

Agric. Botany and Forestry

MAIDEN, J. H., F.L.S. Lectr.

Agric. Chemistry

WRIGHT, G. Asst. Lectr. and Demr.

Agric. Entomology

FROGGATT, W. W., F.L.S. Lectr.

Fruit Culture

WOLSTENHOLME, E. K., F.L.S. Lectr.

ANATOMY

WILSON, J. T., M.B., CH.M. EDIN., F.R.S. Challis Prof.

SMITH, S. A., M.B., CH.M. Lectr. and Demr.

COEN, B. J., M.B. ,,

POATE, H. R. G., M.B., CH.M. ,,

STOREY, J. C., M.B., CH.M. Junr. Demr.

MAGUIRE, F. A., M.B. ,,

GIBSON, A. J., M.B. ,,

MCKELVEY, J. L., M.B., CH.M. Hon. Demr. for 1913.

ASPINALL, A. M., M.B., CH.M. Hon. Demr. for 1913.

FLECKER, H., M.B., CH.M. ,,

Neurology

FLASHMAN, J. F., B.A., B.SC., M.D., CH.M. Hon. Demr.

ARCHITECTURE [Lectr.

HENNESSY, J. F. P. N. Russell

ASTRONOMY (v. also *Geodesy*)

COOKE, W. E., M.A. Prof.

BIOLOGY

HASWELL, W. A., M.A., D.SC. EDIN., F.R.S. Challis Prof.

JOHNSTON, S. J., B.A., D.SC. Asst. Lectr. and Demr.

BADHAM, C., B.SC. Junr. Demr.

BOTANY (v. also *Agric. Bot.*)

LAWSON, A. A., D.SC., F.R.S.E. Prof.

HARRISON, L. Junr. Demr.

CHEMISTRY

FAWSITT, C. E., D.SC. EDIN., PH.D. LEIP. Prof.

SCHOFIELD, J. A., A.R.S.M., F.I.C. Asst. Prof.
BRERETON, E. LE G. Asst. Lectr. and Demr.
BURROWS, G. J., B.SC. Junr. Demr.
HARDING, H. G. Junr. Demr.
HOGARTH, J. W. Junr. Demr.
KELLICK, A. C. T. Junr. Demr.
PAIN, A. Junr. Demr.

Chem., Organic, Pure and Applied
ROBINSON, R., D.SC. Prof.

Chem., Assaying and Metall.
EASTAUGH, F. A., A.R.S.M. Asst. Lectr. and Demr.

COMMERCE (v. also *Account.' Econ.*)

Business Methods, &c.
BRADDON, H. Y. Lectr.

Commercial Geog.
COTTON, L. A., B.SC. Lectr.

Comml. and Industrial Law
RUSSELL, F. A. A., M.A. Lectr.

DENTISTRY

Clin. D., including Orthodontia
MOXHAM, C. G., B.D.S. SYD., D.D.S. PHIL. Lectr.

Crown and Bridge Work, &c.
DECK, E., D.D.S. Lectr.
MARSHALL, F., D.D.S. Lectr.

Surg. D., including Deformities
READING, R. F., M.R.C.S., L.R.C.P., L.D.S. ENG. Lectr.
ASH, P. A., D.D.S. Lectr.
SMITH, DONALD Lectr.

ECONOMICS (v. also *Commerce*)
IRVINE, R. F., M.A. Prof.

EDUCATION
MACKIE, A., M.A. Prof.
COLE, P. R., M.A. SYD., PH.D, COL. Lectr.

ENGINEERING [Challis Prof.
WARREN, W. H., M.I.C.E., LL.D.

Civil Engineering [and Demr.
ROBERTS, H. A., B.E. Asst. Lectr.
VACANT Junr. Demr.

Electrical Engineering
MADSEN, J.P.V., B.E., B.SC.SYD., D.SC. ADEL. P.N. Russell Asst. Prof.
HOLLOWAY, R. A., B.SC., B.E. Junr. Demr.

Mechanical Engineering
BARRACLOUGH, S. H., B.E. SYD., M.M.E. CORN., A.M.I.C.E., M.I.M.E. P. N. Russell Asst. Prof
SUTHERLAND, G. F., A.R.C.S. Asst. Lectr. and Demr.
TAYLOR, E. P., B.E. Junr. Demr.

FORESTRY (v. also *Agric.*)
BAKER, R. T., F.L.S. Lectr.

GEODESY and Astronomy
FURBER, T. F. Lectr.

GEOGRAPHY, v. *Commerce* and *Geol.*

GEOLOGY and Phys. Geog.
DAVID, T. W. E., C.M.G., B.A., D.SC. OX., F.R.S. W.H. Hovell Lectr. and Prof.
BROWNE, W. R., B.SC. Asst. Lectr. and Demr.
THE LECTR. IN *Comml. Geog.* ,,
SMITH, CATHERINE D., B.SC. Junr. Demr.
DAVIS, S. J. G., B.SC. Junr. Demr.
PAUSS, OLGA M., B.A. Curator.

Palæontology
DUN, W. S. Lectr.

HISTORY
WOOD, G. A., M.A. OX. Challis Prof.

HYGIENE, v. *Pub. Health*

LANGUAGES and Literature

Modern Literature [Challis Prof.
MACCALLUM, M. W., M.A., LL.D. GLAS. (Dean of Faculty)
BRENNAN, C. J., M.A. Asst. Lectr.

English
HOLME, E. R., M.A. Asst. Prof.

French and German
NICHOLSON, G. G., B.A. SYD., B.C.L. OX. Asst. Prof.
Greek
WOODHOUSE, W. J., M.A. OX. Prof.
Latin
BUTLER, T., B.A. SYD. Prof.
TODD, F. A., B.A. SYD., PH.D. JENA Asst. Lectr.

LAW (v. also *Commerce*) [Prof.
PEDEN, J. B., B.A., LL.B. (Dean)
Equity, Probate, Bankruptcy, &c.
JORDAN, F. R., B.A., LL.B. Challis Lectr.
Procedure, Evidence, &c. [Lectr.
CURLEWIS, H. R., B.A., LL.B. Challis
Roman Law and Equity Practice
WADDELL, G. W., M.A., LL.D. Lectr.
Status, Civil Obligations, &c.
MITCHELL, E. M., B.A., LL.B. Challis Lectr.

LOGIC and Mental Philos. [Prof.
ANDERSON, F., M.A. GLAS. Challis
LOVELL, H. T., M.A. SYD., PH.D. JENA Asst. Lectr.

MATHEMATICS, Pure and Applied [Prof.
CARSLAW, H. S., M.A. CAMB., D.SC. GLAS., SC.D. CAMB., F.R.S.E.
NEWHAM, A., M.A. CAMB. Asst. Prof.
MOORE, E. M., M.A., F.I.A. ,,
HOLLOWAY, R. A., B.SC., B.E. Asst. Lectr.
MELDRUM, H. J., B.A. ,,
MIDDLETON, R. J., M.A. ,,

MEDICINE and Surgery
Anæsthetics
LIDWILL, M. C., M.D. Tutor.
Diseases of Ear, Nose, Throat
NOLAN, H. R., M.B., CH.M. Lectr.
Diseases of the Skin [Lectr.
MOLESWORTH, E. H., M.B., CH.M.
Ethics of Med. Practice [Lectr.
JONES, SIR PHILIP S., M.D. Hon.
Gynæcology
FOREMAN, J., M.R.C.S. Lectr.
Materia Med. & Therap. [Lectr.
DIXSON, T. S., M.B., CH.M. EDIN.
Medical Jurispr.
TODD, R. H., B.A., M.D., CH.B. Lectr.
Medicine, Principles and Practice of
MILLS, A. E., M.B., CH.M. Lectr.
Medicine, Clinical [Lectr.
RENNIE, G. E., B.A., M.D., F.R.C.P.
GILLIES, S., M.A., M.D. Lectr.
BLACKBURN, C. B., M.D., CH.M. ,,
Medicine, History of
FIASCHI, T., M.D. Hon. Lectr.
Medical Tutors
COSH, J. I. C., M.B., CH.M.
FAIRFAX, E. W., M.B., CH.M.
Midwifery
BARRINGTON, F., M.B., CH.M. EDIN., F.R.C.S. ENG. Lectr.
Ophthalmology [Lectr.
POCKLEY, F. A., M.D., CH.M. EDIN.
Pathology
WELSH, D. A., M.A., B.SC., M.D., M.R.C.P. EDIN. Prof.
BARLING, J. E. V., M.B., CH.M. Lectr. and Chief Demr.
BRADLEY, H. B., M.B., CH.M. Demr.
EDYE, B. T., M.B., CH.M. Demr.
Psychological Medicine
FLASHMAN, J. F., B.A., M.D., CH.M., B.SC. (Demr. in *Path.*) Lectr.
DAVIDSON, A., M.D. Lectr.
Surgery, Principles & Practice of
MAC CORMICK, A., M.D. EDIN., HON. F.R.C.S.LOND.AND EDIN. Lectr.
Surgery, Clinical
HINDER, H. V. C., M.B., CH.M. Lectr.
MAC LAURIN, C., M.B., CH.M. Lectr.
ABBOTT, G. H., M.B., CH.M. Lectr.
Surgical Tutors
WADE, R. B., M.D., CH.M. SYD.
MC KELVEY, J. L., M.B., CH.M.

METALLURGY (*v.* also *Chem.*)
TURNER, B. W., A.R.S.M. P. N. Russell Lectr.

MILITARY SCIENCE [ector.
FOSTER, COL. H. J., R.E. Challis Dir-

Milit. Topography
SMITH, CAPT. W. J. Lectr.
Milit. Engineering [Lectr.
THE ASST. PROF. OF *Mech. Engin.*

MINING [Lectr.
POWER, F. D., F.G.S. P. N. Russell
WILSON, J. B., B.E. Asst. Lectr.

PHILOSOPHY, v. *Logic*

PHYSICS
POLLOCK, J. A., D.SC. SYD. Prof.
VONWILLER, O. U., B.SC. Asst.Prof.
MACKAY, I. G., B.A.
Asst. Lectr. and Demr.

PHYSIOLOGY
STUART, T. P. A., M.D., CH.M., LL.D. EDIN., D.SC. (Dean of Faculty of Med.) Prof.
CHAPMAN, H. G., M.D., B.S.
Asst. Prof.
HOWSON, F., M.A., M.R.C.S. Demr.
BRADLEY, C. H. B., M.B., CH.M. ,,
DIXON, J. R., M.R.C.S. Junr. Demr.
COTTON, F. S., B.SC. Junr. Demr.

PUBLIC HEALTH
ARMSTRONG, W. G., B.A., M.B., CH.M. Lectr.

SURVEYING
CRAIG, A. D., B.A., B.E., A.M.I.C.E., L.S. P. N. Russell Lectr.
POTTS, W. E. Junr. Demr.

VETERINARY SCIENCE
STEWART, J. D., M.R.C.V.S., B.V.SC.
Prof.
Vet. Anatomy
VACANT Lectr.
Vet. Path. & Bacteriology [Lectr.
DODD, S., F.R.C.V.S., D.V.SC. MELB.
Vet. Mat. Med., Therap., and Pharmacy
BADHAM, C., B.SC. Lectr.
Vet. Parasitology
JOHNSTON, S. J., B.A., D.SC. Lectr.
Stable Management, Shoeing, &c.
GRIBBEN, A. P., M.R.C.V.S. Lectr.

ZOOLOGY, v. *Agric. and Biol.*

CHANGES IN STAFF

Badham, C., appointed Lectr. in Vet. Mat. Med.
Baker, R. T., apptd. Lectr. in Forestry.
Bradley, H. B., apptd. Demr. in Path.
Browne, W. R., apptd. Asst. Lectr. in Geol.
Cardew, J. H., Lectr. in Surveying, resigned.
Chapman, H. G., Lectr. in Physiol., apptd. Asst. Prof.
Cooke, W. E., late Govt. Astron., Perth, apptd. Prof. of Astron.
Craig, A. D., apptd. *vice* Cardew.
Curlewis, H. R., apptd. *vice* Ferguson.
Dalyell, Miss E. F., M.B., Ch.M., Demr. in Path., resigned to take up a Beit Memorial Fellowship.
Edye, B. T., apptd. *vice* Dalyell.
Ferguson, Mr. Justice D. G., B.A., Lectr. in Law of Procedure, &c., resigned.
Flashman, J. F., apptd. Demr. in Path.
Gribben, A. P., apptd. Lectr. in Stable Management, &c.
Hennessy, J. F., apptd. *vice* Sulman.
Irvine, R. F., lately Lectr. in Econ. and a member of Pub. Service Board, apptd. Prof. of Econ. and granted leave of absence to visit schools in America and Europe.
Johnston, S. J., apptd. Lectr. in Vet. Parasitology.

Lawson, A. A., late Asst. in the Dept. of Botany in Glas., apptd. Prof. of Bot.
Lovell, H. T., apptd. Asst. Lectr. in Philos.
Madsen, J. P. V., Lectr. in Elec. Engin., apptd. Asst. Prof.
Maiden, J. H., apptd. Lectr. in Forestry.
Nicholson, G. G., Asst. Lectr. in French, apptd. Asst. Prof.
Robinson, R., late Lectr. and Demr. in Chem. in Manc., apptd. Prof. of Org. Chem.
Sulman, J., Lectr. in Archit., resigned.
Vonwiller, O. U., Asst. Lectr. in Phys., apptd. Asst. Prof.
Wolstenholme, E. K., apptd. Lectr. in Fruit Culture.
Woolnough, Asst. Prof. of Geol., resigned to take up Chair of Geol. in W. Aust.
Junior Demrs. were appointed in Anat., Chem., Engin., Geol., and Path.

GENERAL INFORMATION

Faculties. Arts ; Science ; Law ; Medicine. There are Boards of Studies in Agric., Dentistry, Engineering, Military Subjects, and Vet. Science ; for Public examns. ; and for Univ. Extension.

Matriculation. All candidates for degrees are required to pass an examn. in (1) Engl. ; (2) Maths. ; (3) Latin or Greek or French or German ; (4) one or more other subjects in accordance with the regns. prescribed for admission to the several Faculties or Depts.

Terms, 1914. Lent term begins March 9 (10th Monday) and lasts 12 weeks ; Trinity begins June 15 (24th Monday) and lasts 10 weeks ; Michaelmas begins Sept. 14 (37th Monday) and lasts 14 weeks.

Degrees, &c. Arts—B.A., M.A. ; Science—B.Sc., D.Sc., B.Sc. in Agric. ; Law—LL.B., LL.D. ; Medicine—M.B. and Ch.M., M.D. ; Dentistry—B.D.S. ; Veterinary Science—B.V.Sc. ; Engineering—B.E., M.E. ; Economics—B.Ec. *Diplomas* are awarded in Educn., Pub. Health, Trop. Med., Econ. and Comm., and Milit. Sc., and a *Licence* in Vet. Sc. By a Royal Charter issued Feb. 7, 1858, the same rank, style, and precedence are granted to graduates of this Univ. as are enjoyed by those of Univs. within the U.K. In Arts and Science examns. are conducted by the teaching staff with such additional assistance as may be necessary. In the Professional Schools—Law, Med., Engin., and Dentistry—outside examiners are appointed to conduct the examns. with the teaching staff.

Arts. The curriculum for the B.A. degree covers at least 3 years. Ten qualifying courses must be selected from 3 out of 4 specified groups so as to include 1 science and 3 language subjects. Evening lectures are given which include all the subjects necessary for the B.A. degree, with limited options. The M.A. degree may be conferred on a B.A. of 2 years standing after examn. and the submission of a thesis. A B.A. who graduated with Honours may be excused examn.

SCIENCE. The curriculum for the B.Sc. degree covers 3 years, during which the student is required to attend courses at the Univ. and to pass annual examns. A candidate for the D.Sc. must be a B.Sc. of at least 3 years standing, and pass an examn. and present and defend a thesis.

LAW. The curriculum for the LL.B. degree covers 4 years after completing 7 courses or the 1st year in the Faculty of Arts or passing the Law Faculty entrance examn. Students usually take the B.A. first, selecting the theoretical Law subjects in the 3rd year, and complete the combined course in five or six years from Matricn. The lectures are given in the early morning and late afternoon. The LL.B. degree is recognized under certain conditions by the Board for the admission of barristers in N.S.W. as a qualification for admission to the Bar. A candidate for the LL.D. must be a LL.B. of 2 years standing and pass an examn. in Leg. Hist., Rom. Law, Internat. Law, and a special professional subject. Graduates in Arts are exempted from all examns. other than an examn. in Law before admission as barristers of the Supreme Court. The rules of this Court also provide for shortening the period of studentship-at-Law in the case of graduates in Arts from 3 years to 2, one of which may be concurrent with the Final year of studentship at the Univ. Graduates who enter into Articles of Clerkship with attorneys and solicitors are required to serve for 3 years only instead of 5.

MEDICINE. For the M.B. and Ch.M. the curriculum covers 5 years, during which the student must attend the Univ. classes. Attendance at the practice of a recognized hospl. for 2½ years is also required. Clinical instruction is given at the R.P.A. Hospl. (*v. infra*) and the Sydney Hospl. (334 beds). Six other hospls. are also recognized as places where study may be carried on in connexion with the Faculty of Med.

PUBLIC HEALTH. The Diploma may be conferred after examn. on a qualified Med. practitioner of not less than 1 year's standing who has attended the prescribed courses in this Univ. and acquired practical knowledge of Public Health Administration.

TROPICAL MEDICINE. Arrangements have been made for the award of an Australian Diploma in T.M. to qualified Med. practitioners who have attended special courses of laboratory work in Syd., Melb., or Adel., and a further lab. and clin. course at the Aus. Inst. of T.M. at Townsville, Queensland.

DENTISTRY. The curriculum for the B.D.S. covers 4 years, during which the student must attend courses at the Univ., the practice of a Dent. hospital, and specially selected clinics in a general hospl. The Univ. Lectrs. in Surg. and Mech. Dent. are *ex-officio* Hon. Dent. Surgeons of the United Dent. Hospl. of Sydney.

PHARMACY. No Degree or Diploma is granted by the Univ., but the Pharmacy Board requires persons who wish to obtain its Diploma to attend courses at the Univ. in Chem., Bot., Mat. Med., and Therap.

Veterinary Science. For the Licence the curriculum covers 4 years of instruction in the Univ., hospital practice, meat inspection, &c. A Licentiate may proceed to the B.V.Sc. degree after attendance for a 5th year and passing an examn.

Agriculture. Candidates for the B.Sc. in Agric. take a 4 years course, of which the 1st year is similar to that of the B.Sc. course. 12 mos. must be spent at an Agric. Coll. or approved farm in practical work. Candidates who hold the Diploma of a recognized Agric. Coll. may be permitted to take the degree in 3 years.

Engineering. The curriculum for the B.E. covers 4 years whether in (1) Civ. Engin.; (2) Mining and Metall.; or (3) Mech. and Elec. Engin. The subjects of the first 2 years are mainly common to all 3 sub-depts. In (1) and (3) 6 mos. practical experience must be obtained before proceeding with the 4th year. A course of workshop practice in the Univ. Lab. is taken in the 1st year. A candidate for the M.E. must be a B.E. of at least 3 years standing and must have been engaged for that period in Engin. study or practice and present a thesis and (unless he graduated with Honours) pass an examn.

Economics and Commerce. The qualifications for entering the course for the B.Ec. are the same as for the B.A. course except that French or German at the Higher Standard is taken instead of Latin. Three of the 10 qualifying courses must be in Econ., and 3 must be selected from the qualifying courses for the B.A., one being French or German. A *Diploma* in Economics and Commerce may be obtained by attending 3 courses of evening lectures (for admission to which no entrance examn. need be passed), each course consisting of 90 hours instruction.

Military Science. A 3 years curriculum including practical instruction leads to the Diploma; no entrance examn. has to be passed. The Dept. was brought into operation in 1907.

Training of Teachers. The Educn. Diploma is awarded to a graduate in Arts or Science after 1 year of further study, including classes at the Univ. and observation and practice in Teaching.

Recognition of Studies in other Universities. It is not the practice to grant degrees to any student who has not attended courses in Syd. for a considerable portion (in Med. 2 years) of his curriculum.

Advanced Students. By-laws provide for the admission as advanced students in the Faculties of Arts and Science of persons of the age of 21 years and upwards not graduates of any Univ., but having a satisfactory record of a full 3 years course of study at a Univ. and such other evidence of general education and special qualification for advanced study and research as may be approved by the Faculty.

SCHOLARSHIPS, &c., FOR GRADUATES. Junior Demonstrators are appointed annually in each Scientific Dept. with the obligation to carry out research under the direction of the Prof. ; 6 post-graduate Scholarships of £150 are awarded annually for study and research in the Univ. ; 4 Macleay Fellowships of £400 p.a. each are tenable by B.Sc.'s ; 2 post-graduate scholarships of £150 p.a., tenable for 2 years, are awarded annually for further study and research in Europe ; and the Univ. has had the privilege of nominating a Science graduate in alternate years to an 1851 Exhibition Research Scholarship. Three first-class return passages are granted annually by the Orient Line to graduates of this Univ. proceeding to Europe for study.

WOMEN were admitted to all Univ. privileges equally with men in 1884.

RESIDENTIAL FACILITIES, *see* "Affiliated Colleges."

THE LIBRARY (known as the Fisher Library) contains upwards of 92,000 vols. Over 700 serial publications are taken.

MUSEUMS. Nicholson Mus. of Antiq. (over 4000 specimens) ; Macleay Nat. Hist. ; Normal and Morbid Anat.

LABORATORIES. The Med. School, Biol., Phys., Chem. (2 junior, a senior, a Metall. and a Research Lab.), Geol. (with Chem. Research Lab. for rock analysis), School of Engin.

THE ROYAL PRINCE ALFRED HOSPITAL has been erected on the Univ. grounds as a general hospl. and Med. School for instruction of Univ. students and training of nurses. All appointments of Med. officers are made by a Conjoint Board consisting of the Senate of the Univ. and Directors of the Hospl.

THE UNIVERSITY EXTENSION BOARD. Lectures are delivered in courses of from 3 upwards in Sydney and numerous local centres. Univ. certifs. are granted to those who have attended regularly and passed the concluding examn. Tutorial Classes are also offered. By far the greatest part of this Extension work consists of short courses of lectures—in England sometimes called "pioneer courses"—in small country towns scattered over the length and breadth of N.S.W. The Board's Lectrs. are mainly the regular members of the Univ. staff. Specimen travelling record of a Lectr. : Centres visited, 15 ; lectures delivered, 36 ; distance travelled, 4700 miles ; average per lecture, 130 miles.

PUBLIC EXAMNS., Senior and Junior, are held annually in Sydney and elsewhere, open to all candidates who may present themselves.

PUBLICATIONS. The *Calendar*, price 2s. 6d., including Senate's annual report, with lists of publications of Univ. officers and Research

Scholars and examn. papers ; *Manual of Pub. Examns.* ; Reprints of Scientific Papers written by members of the Staff and bound for exchange ; "The Univ. of Sydney," a short description prepared for the Congress of 1912 ; *Students' Handbook* (annual) ; *Hermes*, an undergrads.' magazine.

Affiliated Colleges. By the Act 18 Vict. No. 37 (superseded by Act 64 Vict. No. 22) provision is made for the foundation of Colls. within the Univ. in connexion with the various religious denominations. No student may be admitted to any such Coll. unless he immediately matriculates in the Univ., submits to its discipline, and attends the statutory lectures ; nor can he continue a member of the Coll. longer than his name remains upon the Univ. books. Provision was made by law for a payment from the State in aid of the building fund of every Coll. so established and also for an annual endowment of £500 towards the salary of a Principal. Three such Colls. have been established and incorporated by Act of Parliament, viz. St. Paul's, in connexion with the Church of England, with accommodation for 40 students ; St. John's, in connexion with the R.C. Church, with accommodation for 35 ; and St. Andrew's, in connexion with the Presb. Church, with accommodation for 70. The Women's Coll. has been established and incorporated as a Coll. within the Univ., and is built on the Univ. grounds. It is not attached to any religious denomination. It has accommodation for 28 students.

St. Paul's College. Visitor—The Lord Archbishop of Sydney. Warden—L. B. Radford, M.A., D.D. Camb., Lectr. in *Div.*, *Hist.*, and *Class.* Sub-Warden—L. J. Reynolds, B.E., Lectr. in *Maths.* and *Science.*

Other Lectrs. (non-resident) : *Med.*—H. J. Ritchie, M.B., C.M. *Philos.*—K. T. Henderson, B.A.

St. John's College. Visitor—The Roman Catholic Archbishop of Sydney. Rector—Rt. Rev. Monsignor O'Brien, Lectr. in *Sacred Script.*

Other Lectrs. : *Logic*—L. Murphy, S.J. *Med.*—J. McKelvey, M.B., Ch.M. *Maths.*—H. de B. O'Reilly, B.A., LL.B. *Science*—R. A. Gardner.

St. Andrew's College. Visitor—The Moderator of the General Assembly. Principal—Andrew Harper, M.A. Melb., D.D. Edin. Vice-Principal—S. Castlehow, B.A. Syd. and Ox. Secretary—S. J. Carruthers.

Hunter-Baillie Profs. : *Oriental and Polynesian Langs.*—The Principal. *Engl. Lang. and Lit.* (in relation to Religion)—R. G. Macintyre, M.A., B.D.

Lectrs. : *Class and Philos.*—The Vice-Principal. *Law*—H. S. Utz, B.A., LL.B. *Maths.*—W. J. E. Davies, B.A., LL.B. *Med.*—R. L. Davies, M.B., Ch.M. *Science*—J. G. Hunter, B.Sc. (*Biol.*) ; A. Paul, B.A., B.Sc. (*Phys.* and *Chem.*).

The Women's College. Visitor—The Chancellor. Principal—Miss L. Macdonald, M.A. Lond.

THE YEAR 1912–13

Benefactions Received include £625 for establishment of prizes in various subjects and collections of minerals and scientific apparatus.

New Departments and Posts. Chairs of Astron., Bot., Organic and Applied Chem., and Econ. have been established. That of Astron. is to be held in conjunction with the post of Govt. Astronomer of N.S.W.

Public Examinations. The number of candidates in 1912 at the Junior examns. was 1178; at the Senior, 210. The Junior were held at 35 and the Senior at 8 local centres.

University Extension Lectures. Regular courses were delivered in 42 centres.

Number of Students pursuing Degree and Diploma courses, 1360 (including about 170 women). This includes 60 graduate students, of whom 20 were women, and 139 evening students, of whom 24 were women. Attending special courses, 112. Scholarship holders continuing study or research in Europe or America, 9.

Degrees Conferred. M.A., 10; B.A., 71; D.Sc., 2; B.Sc., 9; LL.B., 10; M.B., 14; Ch.M., 26; M.D., 2; B.E., 13; B.D.S., 2; B.V.Sc., 2.

Changes of Policy, &c., *v.* "Legislation."

Additions to Equipment. Apparatus for the Depts. of Med. and Engin. paid for from the Parly. grants of £3000 and £5000 respectively for these purposes.

Additions to Amenities. The Union has been completed and opened for the benefit of students and other male members of the Univ. The cost, £7000, was defrayed from the Challis Fund.

Legislation. *The Univ. Amendment Act*, 1912. (1) Under the original Act, the *Senate* (the Governing Body) consisted of 16 Fellows elected by the graduates, including the teaching staff, &c., and not less than 3 nor more than 6 *ex-officio* members who were Profs. of the Univ. The amending Act provides that the Senate shall consist of 4 Fellows appointed by the Govr., 1 elected by the members of the Leg. Assembly, 1 elected by the members of the Leg. Council, 5 Fellows representing the teaching staff (viz. the Chairman of the Professorial Board and 1 elected by each of 4 Faculties), 10 elected by the graduates, and 3 co-opted by the Fellows of the Senate. The present Chancellor and Vice-Chancellor are Fellows for life; with these exceptions all Fellows are elected or appointed for a period of 5 years, retiring

simultaneously. (2) A School *Leaving Certificate* is established. It is to be granted by the Dept. of Pub. Instrn. on the recommendation of a Board of Examiners at least half of the members of which are nominated by the Univ., and is to be recognized for purposes of Matricn. provided that it certifies that the student has passed the subjects and at the standards prescribed by the Senate. (3) *Public Exhibitions* are to be awarded on the results of the Leaving Certif. examn. They will entitle to free education at the Univ. during the period necessary for obtaining a 1st degree in any Faculty according to an allotment to be made by the Senate. In 1914 one hundred such Exhibitions are to be given, and in future years the number is to be 1 for every 500 of the persons within N.S.W. who are between the ages of 17 and 20 or such other ratio as may be determined by Parliament. (4) The Statutory *Endowment* of the Univ. (£10,000) is increased to £20,000 p.a. and provision made for further automatic increase depending upon the number of persons eligible for exhibitions.

UNIVERSITY OF TASMANIA

[Established under Act 53 Vict. No. 41 of the Tasmanian Legislature, 1890.]

VISITOR	H.E. THE GOVERNOR.
CHANCELLOR	Hon. Sir JOHN S. DODDS, K.C.M.G., C.J.
VICE-CHANCELLOR	Hon. TETLEY GANT, M.A. Ox.
REGISTRAR	Lt.-Col. J. H. R. CRUICKSHANK, R.E. (R.).

PROFESSORS, LECTURERS, ETC.

BIOLOGY [Ralston Prof.
FLYNN, T. T., B.SC. SYD.

CHEMISTRY and Geology
MACLEOD, P. J., B.A. N.Z. Lectr.

CLASSICS and English Literature
WILLIAMS, W. H., M.A. CAMB. Prof.
Classics and Mod. Hist.
DUNBABIN, R. L., M.A. OX. Lectr.

ENGINEERING and Surveying
MACKAY, J. H., M.C.E. MELB. Prof.

LANGUAGES, Modern
RITZ, H. B., M.A. MELB. Lectr.

LAW and Modern History
MCDOUGALL, D. G., M.A., B.C.L. OX., M.A., LL.D. MELB. Prof.
GRIFFITHS, P. L., M.A. MELB., LL.B. TASM. *Law* Lectr.

MATHEMATICS and Physics
MCAULAY, A., B.A. CAMB., M.A. MELB. Prof.

PHILOSOPHY and Economics
MILLER, E. M., M.A. MELB. Lectr.

PHYSICS
GLASSON, J. L., B.A. CAMB., D.SC. ADEL. Lectr.

GENERAL INFORMATION

There are 3 Faculties—Letters ; Science ; and Law. A Board of Studies (which includes the Profs. and Lectrs.) supervises all matters concerning the studies and examns. of the Univ. From its foundation in 1890 the organization of Junior and Senior Public Examns. has formed an important part of the work of the Univ.

MATRICULATION. The minimum age is 16.

TERMS. The academic year has 4 terms, beginning respectively on the 9th, 23rd, 35th, and 46th Wed. in the calendar year and continuing for 12, 10, 10, and 5 weeks.

DEGREES, &c. B.A., M.A. ; B.Sc., M.Sc., D.Sc. ; LL.B., LL.M., LL.D. The Diplomas in Metal Mining and in Metall. Chem. and

Assaying of the affiliated Zeehan School of Mines and Metall. are granted after examns. held under the supervision of the Univ.

A candidate for the B.A. or B.Sc. must pass in the subjects of the 3 examns. in the course for the degree in not less than 3 separate years, but the order in which he presents himself for examn. in these subjects is to a great extent optional. Before admission to examn. for the B.Sc. degree in Phys., Chem., Geol., &c., a candidate must have attended at the practical classes of the Univ. unless excused on the ground of having already obtained sufficient practical knowledge. A candidate for the LL.B. has to pass in all the subjects of the 4 prescribed examns. in the course, but may take all in one year or in any order in separate years. Before admission to examn. in any subject of the 2nd, 3rd, or 4th examn. he must have attended the lectures of the Univ. therein unless excused on special grounds. The Master's degree is conferred on a Bachelor of 2 years standing in consideration of his having qualified in an Honours examn.

Post-graduate Study. The Orient Royal Mail line of steamers offer annually a first-class return passage for graduates proceeding to Europe to continue their studies.

Public Examinations. The minimum age for admission to the Junior and Senior examns. respectively are 12 and 15. Passes in the whole or in certain subjects have been made parts of the qualifications required for promotion of Teachers of the Educn. Dept. Examns. in Music are held annually in pursuance of an arrangement made with Melb., Adel., and Queensland.

Publications. The *Calendar*, issued in or about July, 2s.; *Manuals of Junior and Senior Pub. Examns.*, March, 1s. each; *Degree Ordinary and Honours Examn. Papers*, March, 1s.

Affiliated Institution. Zeehan School of Mines and Metallurgy.

THE YEAR 1912–13

Benefactions Received. £50 for apparatus for study of plant disease; £250 for completion of Laboratory equipment for bacteriol. research.

Fresh Sources of Revenue. Govt. grant of £1000 to supplement the £4000 p.a. receivable under the Act of Incorporation.

Special Event. Visit and address by the Rt. Hon. James Bryce, O.M., P.C.

New Departments and Posts. A Chair in Engin. and Lectureships in Phys., Philos. and Econ., and Law.

Public Examinations. 435 candidates entered for the Junior and 161 for the Senior examn.

NUMBER OF STUDENTS preparing for the Bachelorship, 104; occasional students, 56; evening students (Classics), 32; Bachelor students preparing for the Master's degree, 3; total number of students attending classes, 128 in Hobart and 8 in Launceston. Of these 85 were matriculated or qualified for Matricn.; of the rest all but one were Training Coll. students.

DEGREES CONFERRED. M.A., 1; B.A., 2; M.Sc., 1; B.Sc., 1; LL.B., 2. Admissions *ad eundem*—M.A., 2; B.A., 2; D.Sc., 1; LL.D., 1.

NEW REGULATIONS were made regarding the degree of D.Sc.

UNIVERSITY OF TORONTO

[The Provincial University of the Province of Ontario.]

VICTORIA UNIVERSITY UNIVERSITY OF TRINITY COLLEGE	Federated with the University of Toronto.*

COLLEGES OF THE UNIVERSITY

UNIVERSITY COLLEGE.
VICTORIA COLLEGE (The Faculty of Arts of Vict. Univ.).
TRINITY COLLEGE (The Faculty of Arts of the Univ. of Trin. Coll.).
ST. MICHAEL'S COLLEGE (Federated with the Univ.).

FEDERATED COLLEGES

ST. MICHAEL'S COLLEGE.
KNOX COLLEGE.
WYCLIFFE COLLEGE.

CHAIRMAN OF THE BOARD OF GOVERNORS	Sir EDMUND WALKER, C.V.O., D.C.L., LL.D.
CHANCELLOR	Hon. Chief Justice Sir WILLIAM R. MEREDITH, LL.D.
PRESIDENT	ROBERT A. FALCONER, C.M.G., M.A., LL.D., D.Litt.
REGISTRAR	J. BREBNER, B.A.
BURSAR AND SECY. TO THE BOARD	F. A. MOURÉ.
LIBRARIAN	H. H. LANGTON, M.A.
DIRECTOR OF ARCHÆOLOGICAL MUSEUM	C. T. CURRELLY, M.A.
PHYSICAL DIRECTOR	J. W. BARTON, M.D.
SUPT. OF BUILDINGS AND GROUNDS	C. G. CAMPBELL, B.A.
MANAGER OF THE UNIV. PRESS	R. J. HAMILTON, B.A.
PRINCIPAL OF UNIV. COLLEGE	M. HUTTON, M.A., LL.D.
REGISTRAR	J. S. WILL, B.A.
SUPERIOR OF ST. MICHAEL'S COLLEGE	Prof. R. MCBRADY.
REGISTRAR	Prof. H. CARR.

[For Victoria and Trinity Colls., v. *post*.]

* The Univ. Act 1906 provides that the power and authority of conferring degrees, except in Theology, of any federated Univ. shall be in abeyance. The

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY

LANGSTAFF, J. M., C.A., F.I.A., F.A.S. *Lectr.
FERGUSON, W. S., C.A. *Lectr.

ANATOMY [Prof. & Dir. of Dept.
MCMURRICH, J. P., M.A., PH.D. J. HOPK., LL.D.
AIKINS, H. W., B.A., M.B. Assoc. Prof.
WATT, J. C., B.A., M.B. Lectr.
CANFIELD, A. W., M.D., C.M. Demr. in *A*. and Clin. Asst. in *Pediat.*
COPP, C. J., M.D., C.M. Demr.
EMBREE, M. H., B.A., M.B. Demr.
FRAWLEY, N. D'A., M.D. Demr.
HENDRY, W. B., B.A., M.B. Demr. in *A*. and *Gynæc.*
HOOPER, R. E., B.A., M.B. Demr.
MCNICHOL, O. A., M.B. Demr.
SHUTTLEWORTH, C. B., M.D., C.M., F.R.C.S. ENG. Demr.

ARCHÆOLOGY, v. *Langs. and Lit.—Greek*

*ARCHITECTURE**

WRIGHT, C. H. C., B.A.SC., M.O.A.A. Prof.
MC CONNELL, A. W., B.A.SC. Lectr.

ART, v. *Drawing*

ASTRO-PHYSICS [Assoc. Prof.
CHANT, C. A., M.A., PH.D. HARV.
BLAKE, F. L., D.L.S. Class Asst.
EASTON, G. S. (*A*. and *Phys.*) Class Asst.
HOLMES, H. Class Asst.
HODGSON, E. A., B.A. (Fellow in *Maths.*) Asst.

BIOCHEMISTRY

MACALLUM, A. B., M.A., M.B., PH.D. J. HOPK., D.SC. DUB., LL.D. ABERD., F.R.S. Prof.
BENSON, MISS C. C., PH.D. Assoc. Prof.
CAMPBELL, W. R., M.A. Fellow (*Bioc.* and *Physiol.*).
COLLIP, J. B., B.A. Fellow.
CHESNUT, MISS R.K., B.A. Junr. Asst.
GABY, R. E., B.A., M.D. COR. Demr.
PATTERSON, MISS O. G. †Instr.

BIOLOGY (v. also *Zoology*)

BENSLEY, B. A., B.A., PH.D. COL. Prof.
HUNTSMAN, A. G., B.A., M.B. Lectr.
BAILLIE, W. H. T., M.A. Class Asst.
BALL, H. DE W., B.A., M.B. ,,
BARRACLOUGH, W. W. (*B*. and *Physiol.*) ,,
CLEMENS, W. A., B.A. ,,
COUTTS, E. D., B.A. ,,
FRYER, J. R. ,,
HAMILTON, W. ,,
MCCULLOCH, E. A., B.A., M.D. ,,
MENZIES, L. P. ,,
PUGH, H. C. ,,
SKEELES, L. O. C., B.A., M.B. ,,
SMITH, J. R. (*B*. and *Physiol.*) ,,
WODEHOUSE, R. P. ,,
COOPER, A. R., M.A. ,,
ROBERTSON, A. D., B.A. ,,

BOTANY [Assoc. Prof.
FAULL, J. H., B.A., PH.D. HARV.
THOMSON, R. B., B.A. Assoc. Prof.
HOWE, C. D., M.A. VER., PH.D. CHIC. (*Bot.* and *Forestry*) Asst. Prof.

grads. and undergrads. in Arts, Science, and Law and such grads. in Medicine as have passed their examns. in Ontario from and after the date of federation, and so long as federation shall continue, shall enjoy the same degrees, honours, and status in the Univ. of Toronto as they did in the federated Univ. (sec. 8). Federated Univs. and Federated Colls. are represented on the Senate and on the Council of the Faculty of Arts (ss. 47 and 74).

* In the Faculty of Applied Science and Eng.

† In the Faculty of Household Science.

WHITE, J. H., M.A., B.SC.F. Lectr.
ALLIN, A. E., B.A. Class Asst.
GORDON, MISS M., B.A. ,,
MCFARLANE, MISS J., M.A. ,,
GRAHAM, G. H., M.A. Asst.

CHEMISTRY (v. also *Bio-*, *Electro-*, and *San.*)
LANG, W. R., D.SC. GLAS., F.I.C. Prof. & Dir. of the Chem. Lab.
KENRICK, F. B., M.A., PH.D. LEIP. Assoc. Prof.
COGHILL, J. B., A.R.C.SC.I. Asst.
ELWORTHY, R. T., B.SC. LOND. Asst.
FAWCETT, W. J., B.A. Asst.
FUNNELL, W. S., B.A. Asst.
JANSON, J. T., B.SC. LOND. Asst.
LEADBEATER, W. R., M.A. QUEEN'S Asst.
MARTIN, H. C., B.A. Asst.
RUBIDGE, C. R., B.A. Asst.
BAMFORD, MISS H. Asst.
BRANDT, H. R. Asst.
BURGESS, K. E. Asst.
QUA, N. C. Asst.
DAVIDSON, W. A. Student Asst.
IRELAND, N. J. Student Asst.
LANCASTER, H. M., B.A.SC. *Demr.
ROGERS, L. J., B.A.SC. *Demr.

*Chemistry, Applied**
ELLIS, W. H., M.A., M.B. *Prof.
BAIN, J. W., B.A.SC. *Assoc. Prof.
ARDAGH, E. G. R., B.A.SC. *Asst. Prof.

Chemistry, Organic
ALLAN, F. B., M.A., PH.D. Assoc. Prof.
BOSWELL, M. C., M.A., PH.D. *Asst. Prof.

Chemistry, Physical [Prof.
MILLER, W. L., B.A., PH.D. MUNICH

CLASSICS, v. *Langs. and Lit.*

*DRAWING**
FISKEN, J. B. K., B.A.SC. Demr.
MADILL, H. H., B.A.SC. Demr.
MELSON, J. W., B.A.SC. Demr.
PEQUEGNAC, M., B.A.SC. Demr.
RUTLEDGE, L. T., B.A.SC. Demr.
SMITHER, W. J., B.A.SC. Demr.
WATSON, F. E., B.A.SC. Demr.
WILLIAMS, G. K., B.A.SC. Demr.
WRIGHT, W. J. T., B.A.SC. Demr.

Freehand and Water-Colour
JEFFREYS, C. W., A.R.C.A., M.O.S.A. Instr.

ECONOMICS, v. *Pol. Econ.*

EDUCATION
SANDIFORD, P., PH.D. Assoc. Prof.
CRAWFORD, H. J., B.A. Assoc. Prof., Headmaster of the Univ. Schools.
CORNISH, G. A., B.A. †Lectr.
COOMBS, F. E., M.A. †Lectr.
CRAWFORD, J. T., B.A. †Lectr.
FERGUSON, W. C., B.A. †Lectr.
IRWIN, J. A. †Lectr.
STEVENSON, O. J., M.A., D. PÆD. †Lectr.
PERRY, S. W. Instr. and Lectr.
BARTON, J. W., M.D. Instr. in *Phys. Training.*
GROVES, W. E. Supervisor of *Practice Teaching.*
EMBREE, L. E., LL.D. ,,

ELECTRO-CHEMISTRY
BURT-GERRANS, J. T., B.A. Lectr.
BRUCKMILLER, F. W., A.B. Demr.

EMBRYOLOGY, v. *Histol., Zool.*

ENGINEERING (v. also *Archit. Drawing, Geom., Phys.*)
GALBRAITH, J., M.A., LL.D. Prof.

Electrical Engineering
ROSEBRUGH, T. R., M.A. Prof.
PRICE, H. W., B.A.SC. Assoc. Prof.
GUEST, W. S., B.A.SC. Lectr.
HOPKINS, R. H., B.A.SC. Lectr.
HUNTER, A. N., B.A.SC. Lectr.
ZIMMER, A. R., B.A.SC. Lectr.
CODE, A. G., B.A.SC. Demr.
MACAULAY, R. V., B.A.SC. Demr.
TAYLOR, R., B.A.SC. Demr.

Machine Design
LAGERGREN, J. T., M.E. Lectr.

* In the Faculty of Applied Science and Eng.
† And Chief Instr. in the Univ. Schools.

Mechanical Engineering [Prof.
ANGUS, R. W., B.A.SC., M.A.S.M.E.
JACKSON, JR., M.B., Lectr.
ARKLEY, L. M., M.SC., A.M.CAN.SOC.C.E. Lectr.
PARKIN, J. H., B.A.SC. Demr.
YOUELL, A. W., B.A.SC. ,,

Metallurgical Engineering
BISHOP, W. S., A.B.CORN. Lectr.

Mining Engineering [Prof.
HAULTAIN, H. E. T., C.E., M.I.M.M.
KING, J. T., B.A.SC. Asst.
DYER, F. C., B.A.SC. Demr.
STEWART, R. B., M.A. Lectr.

ETHNOLOGY, v. *History—Mod.*

FORESTRY (v. also *Botany*)
FERNOW, B. E., LL.D. Prof.
HOWE, C. D., PH.D. Lectr.
ROSS, A. H. D., M.A., M.F. Lectr.
WHITE, J. H., M.A., B.SC.F. Lectr.

GEOLOGY (v. also *Mineralogy*)
COLEMAN, A. P., M.A., PH.D. BRES., F.R.S. Prof.
PARKS, W. A., PH.D. Assoc. Prof.
MACLEAN, A., B.A. Lectr.
WHITTAKER, E. J., B.A. Fellow.

*GEOMETRY, Descriptive**
COCKBURN, J. R., B.A.SC., A.M.CAN.SOC.C.E. Asst. Prof.

HISTOLOGY and Embryology
PIERSOL, W. H., B.A., M.B. Assoc. Prof.

HISTORY (v. also *Latin, Rel. Kn.*)
SMITH, G. M., B.A. Lectr.
WILLIAMS, R. H., B.A. OX. Lectr.
MCMURCHIE, MISS H., B.A. Instr.
WALLACE, W. S., B.A. Spl. Lectr.

Ancient History [Prof.
DUCKWORTH, H. T. F., M.A. OX. (T)
SMITH-GORDON, L., B.A. OX. (C) Lectr.

Ancient and Modern Hist.
BROWN, A. GRANT, M.A. OX (C)† Lectr.

Greek and Roman Hist.
MILNER, W. S., M.A. (C) Prof.

Modern H. and Ethnol.
WRONG, G. MCK., M.A. Prof.

Modern History
KYLIE, E. J., M.A. OX. Assoc. Prof.

HOUSEHOLD SCIENCE
LAIRD, MISS A. L. Assoc. Prof.
EADIE, MISS E. M. Lectr.
OCKLEY, MISS L. L. Instr.
PATTINSON, MISS N. L. Instr.
PAUL, MISS H. A. Instr.
PATTERSON, MISS O. G. (*Biochem.*) Instr.

HYGIENE
AMYOT, J. A., M.D. Prof.
FITZGERALD, J. G. Assoc. Prof.

LANGUAGES and Lit. (v. also *Philol., Rel. Kn.*)

Anglo-Saxon
KEYS, D. R., M.A. (C) Assoc. Prof.

Classics and German [Lectr.
DUFF, D., M.A., B.D. EDIN. (T)

Classics
MOZLEY, J. H., B.A. CAMB. (T) Lectr.
WOODCOCK, J. N., M.A. OX. (T) ,,

English
ALEXANDER, W. J., B.A. LOND., PH.D. J. HOPK. (C) Prof.
STEVENSON, G. S., M.A. EDIN., B.LITT. OX. (C) Assoc. Prof.
WALLACE, M. W., B.A., PH.D. CHIC. (C) Assoc. Prof.
CLAWSON, W. H., M.A., PH.D. HARV. (C) Lectr.
MACDONALD, W. L., B.A., M.A. WISC., PH.D. HARV. (C) Lectr.

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MARTIN, L. C., M.A. OX. (T) Lectr.

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(T) On Trin. Coll. staff.
(C) On Univ. Coll. staff.

English Literature

EDGAR, O. P., B.A., PH.D. J. HOPK. (V) William Gooderham Prof.
SIMPSON, H. C., B.A. OX., M.A. (T) Prof.
AUGER, C. E., B.A. (V) Assoc. Prof.

English and German [Reader.

KÄMMERER, MISS C. E., M.A. (T)

French [Prof.

KITTREDGE, R. E. L., M.A. HARV. (T)
SQUAIR, J., B.A. (C) Prof.

French Lang. and Lit.

DE BEAUMONT, V., M.A. COL. (V) Eliza Gooderham Assoc. Prof.
DE CHAMP, ST. E., B.L. LYONS, O.A. (C) Assoc. Prof. and Lectr. (V).
CAMERON, J. H., M.A. (C) Assoc. Prof.
SNOW, F. H., A.B. HARV., PH.D. COL. (V) Assoc. Prof.
WILL, J. S., B.A. (C) Assoc. Prof.
LIPARI, A., M.A. COL. (T) Lectr.
JEANNERET, F. C. A. Lectr.
BALBAUD, P. (C) Instr.
BIBET, L. A. (C) Instr.
CORBETT, L. H., M.A. (C) Instr.

German

LANG, A. E., M.A. (V) Prof.
YOUNG, A. H., M.A. (T) Prof.
NEEDLER, G. H., B.A., PH.D. LEIP. (C) Prof.
TOEWS, P., M.A., PH.D. HEID. (C) Asst. Prof.
MUELLER, P. W., B.A. (C) Lectr.
ADDISON, MISS M. E. T., B.A. (V) Lectr.
OWEN, F., M.A. (V) Lectr.
REICH, P. M. I. M., PH.D. PALERMO (T) Lectr.

Greek [Prof.

HUTTON, M., M.A. OX., LL.D. (C)
LANGFORD, A. L., M.A. (V) Prof.
OWEN, E. T., M.A. (T) Prof.
DALE, E. A., B.A. OX. (C, V) Lectr.

Greek Lang. and Philos.

ROBERTSON, J. C., M.A. (V) W. E. H. Massey Prof.

Greek, German, and Hist. of Grk. Philos.

CARR, H., B.A. (M) Prof.

Greek Lit. and Archæol. [Prof.

CARRUTHERS, A., M.A. (C) Assoc.

Greek Philosophy

BRETT, G. S., M.A. OX. Lectr.

Hebrew

COSGRAVE, F. H., B.A. DUB. (T) Prof.

Italian and Spanish

FRASER, W. H., M.A. Prof.
BUCHANAN, M. A., B.A., PH.D. CHIC. Assoc. Prof.
NORTHUP, G. T., B.A., PH.D. CHIC. Asst. Prof.
DI PIETRO, N., LITT.D. PISA Instr.

Latin [J. Macdonald Prof.

BELL, A. J., B.A., PH.D. BRES. (V)
FLETCHER, J., M.A. OX., LL.D. QUEEN'S (C) Prof.
KIRKWOOD, W. A., M.A., PH.D. HARV. (T) Prof.
JOHNSTON, G. W., B.A., PH.D. J. HOPK. (C) Assoc. Prof.
SMITH, G. O., M.A. OX. (C) Asst. Prof.
CLIFTON, E. W. V., B.A. OX. (C) Lectr.

Latin, Ancient Hist. and [Prof.

SISSONS, C. B., B.A. (V) Nelles Assoc.
DE WITT, N. W., B.A., PH.D. CHIC. (V) Prof.

Latin and French

MC BRADY, R. (M) Prof.

Oriental Langs.

MC CURDY, J. F., PH.D. PRINCE., LL.D. NEW BRUNS. (C) Prof.
BENZINGER, I., PH.D. TÜB. (C) Assoc. Prof.
MC RAE, C. A., PH.D. (C) Spl. Lectr.
TAYLOR, W. R. Spl. Lectr.
POTTER, W. A., B.A., B.D. (V) Lectr.

Oriental Langs. and Lit.

MC LAUGHLIN, J. F., B.A., B.D. (V) Eliza Phelps Massey Prof.

Spanish, v. Italian

(C) On Univ. Coll. staff.
(T) On Trin. Coll. staff.
(M) On St. Michael's Coll. staff.
(V) On Victoria Coll. staff.

LAW

Commercial Law [Spl. Lectr.

FALCONBRIDGE, J. D., M.A., LL.B.

Const. and Internat. Law

YOUNG, J. MC G., M.A. Prof.

Roman Law and Jurispr.

LEFROY, A. H. F., M.A. OX. Prof.

LOGIC, v. *Philos.*

MATHEMATICS (v. also *Astro-Physics*)

BAKER, A., M.A. Prof.

DE LURY, A. T., M.A. Prof.

FIELDS, J. C., B.A., PH.D. J. HOPK., F.R.S. Assoc. Prof.

MACKENZIE, M. A., M.A. CAMB., F.I.A. Assoc. Prof.

BEATTY, S., M.A. Lectr.

POUNDER, I. R., B.A. Lectr.

MEDICINE and Surgery (v. also *Anat.*)

Bacteriology, v. *Path.*

Gynæcology (v. also *Obst.*)

MARLOW, F. W., M.D., C.M., F.R.C.S. ENG. Assoc. Prof.

MAC MURCHY, MISS H., M.D. Demr.

HENDRICK, A. C., M.A., M.B., F.R.C.S. ENG. Demr.

CLELAND, F. A., B.A., M.B. Asst.

CLUTTERBUCK, H. E. Asst.

WESLEY, R. W. Asst.

Laryngology and Rhinology

MC DONAGH, G. R., M.D. Prof.

WISHART, D. J. G., M.D., C.M. MC G. Assoc. Prof.

Medical Jurisprudence

POWELL, N. A., C.M., M.D. Prof.

Medicine and Clin. Med.

MC PHEDRAN, A., M.B., C.M. Prof.

FOTHERINGHAM, J. T., M.D., C.M. Assoc. Prof.

ELLIOTT, J. H., M.B. Assoc.

Clinical Medicine [Prof.

ANDERSON, H. B., M.D., C.M. Assoc.

BAINES, A. M., M.D., C.M. (also *Pediatrics*) ,,

CAVEN, W. P., M.B. Assoc. Prof.

CHAMBERS, G., B.A., M.B. ,,

DWYER, R. J., M.B., M.R.C.P. ,,

GOLDIE, W., M.B. ,,

GORDON, A. R., M.B. ,,

THISTLE, W. B., M.D. ,,

HOWLAND, G. W., B.A., M.B., M.R.C.P. Assoc.

HUTCHISON, H. S., M.B. ,,

MC COLLUM, W. J., M.B. ,,

MC GILLIVRAY, D., M.B. ,,

PARSONS, H. C., M.D., C.M., M.R.C.P. L. Assoc.

BURSON, E. C., M.B. Demr.

CLARKSON, F. A., M.B. ,,

GRAHAM, J. S., M.B. ,,

MACKENZIE, J. A., B.A., M.B., LL.B. Demr.

MC PHEDRAN, J. H., M.D. ,,

MC VICAR, C. S., M.B. ,,

MANN, R. W., M.D. ,,

O'REILLY, B. R., M.D., C.M. ,,

ROSS, G. W., B.A., M.D., M.R.C.P. Demr.

SMITH, D. KING, M.B. ,,

STRATHY, G. S., M.D., C.M. ,,

WAGNER, C. J., M.B. ,,

YOUNG, G. S., B.A., M.B. ,,

BOYER, G. F., M.D. Asst.

LOUDON, J. D., B.A., M.B., M.R.C.S., L.R.C.P. Asst.

OILLE, J. A., M.D. ,,

VROOMAN, F. S., M.B. ,,

WHYTE, M. B., B.A., M.B. ,,

ARMOUR, R. G., B.A., M.B. Senior Research Fellow.

MC PHEDRAN, W. F., B.A., M.B. ,,

IMRIE, C. G. Junior Research Fellow.

CAULFIELD, A. H., M.B. Spl. Asst. in Research.

Medicine, Preventive

VACANT Prof.

Mental Dis. [Prof.

BEEMER, N. H., M.B. Extra-Mural

Obstetrics and Gynæc.

WATSON, B. P., M.D., CH.B. EDIN., F.R.C.S.E. Prof.

MACHELL, H. T., M.D. (*O.* and *Pediatrics*) Assoc. Prof.

MC ILWRAITH, K. C., M.B. (*Obst.*) Assoc. Prof.
FENTON, F., M.D., C.M. (*Obst.*) Assoc.
CRAWFORD, M. M., M.B. (*Obst.*) Demr.
KINNEAR, J. A., M.D., C.M. ,, ,,
MABEE, W. J., M.B. ,, ,,
MAGWOOD, S. J. N., M.B. (*Obst.*) Asst.

Ophthalmology and Otology [Prof.
BURNHAM, G. H., M.D., F.R.C.S.E.
REEVE, R. A., M.D., LL.D. Prof.
RYERSON, G. S., M.D., C.M. Prof.
MAC CALLUM, J. M., M.D. Assoc. Prof.
LOWRY, W. H., M.D., C.M., M.R.C.S., L.R.C.P. Demr.
CAMPBELL, C. A., M.D., C.M., M.R.C.S., L.R.C.P. Asst.
CROSBY, G. W. Asst.
MACLENNAN, D. N., M.D., C.M., M.R.C.S., L.R.C.P. Asst.

Oto-Laryngology
MC DONAGH, G. R., M.D. Prof.
WISHART, D. J. G., B.A., M.D., C.M. MC G. Assoc. Prof.
BOYD, G., B.A., M.B. Assoc. Prof.
GOLDSMITH, P. G., M.D. Demr.
ROYCE, G., B.A., M.B. Demr.

Pathology and Bacteriology
MACKENZIE, J. J., B.A., M.B. Prof.
GRAHAM, D. A., M.B. (*Bact.*) Lectr.
GALLIE, W. E., M.B. (Asst. in *Clin. Surg.*) Demr.
MABEE, O. R., M.D., C.M. MC G. ,, ,,
O'REILLY, B. R., M.D., C.M. ,,
ROBERTSON, D. E., M.B. ,,
ROLPH, A. H., M.B. ,,
WATTS, F. E., M.B. ,,
MC CALLA, A. I., B.A., M.B. Fellow.
COLE, C. E. C., B.A., M.B. Asst. Demr.
OILLE, J. A., M.D. Asst. Demr.

Pathological Chem.
LEATHES, J. B., B.A., M.B., B.CH. OX., F.R.C.S. ENG., F.R.S. Prof.
RAPER, H. S., D.SC., M.B., CH.B. Lectr.

Pediatrics, v. *Med.—Clin.* and *Obst.*, and *Anat.*

Pharmacy and Pharmacology
HENDERSON, V. E., M.A., M.B. Assoc. Prof.
FLETCHER, A. A. Asst.
HARRISON, F. C., B.A., M.B. Asst.
ROBERTSON, H. J., B.A., M.B. Fellow.

Psychiatry
CLARKE, C. K., M.D., LL.D. Prof.
JONES, E., M.D., B.S., M.R.C.P., D.P.H. Assoc. Prof.
FORSTER, J. M., M.B. Assoc.
CLARE, H., M.D. Demr.

Surgery
CAMERON, I. H., M.B., LL.D., F.R.C.S. ENG. AND EDIN. Prof.

Clinical Surgery
BINGHAM, G. A., M.D., C.M. Assoc. Prof. of *C.S.* and *Clin. Anat.*
BRUCE, H. A., M.D., F.R.C.S. ENG. Assoc. Prof.
MC KEOWN, P. W. H., B.A., M.B. ,,
PRIMROSE, A., M.B., C.M. EDIN. ,,
STARR, C. L., M.B. ,,
STARR, F. N. G., M.B. ,,
PROF. POWELL (v. *Med. Jur.*) ,,
RICHARDSON, T. B., M.D., C.M., F.R.C.S. EDIN. Assoc.
SCOTT, W. A., B.A., M.B., F.R.C.S. ENG. Assoc.
SHUTTLEWORTH, C. B., M.D., C.M., F.R.C.S. ENG. Assoc.
UREN, J. F., M.D., C.M. Assoc.
CAMERON, M. H. V., M.B. Demr.
GABY, R. E., B.A., M.D. Demr.
JONES, W. W., B.A., M.B., F.R.C.S. ENG. Demr. in *C.S.* and *Anat.*
MALLOCH, W. J. O., B.A., M.B., F.R.C.S. ENG. Demr.
ROBERTS, J. A., M.B., L.R.C.P., F.R.C.S. ENG. Demr.
RYERSON, E. S., M.D., C.M. ,,
SHENSTONE, N. S., M.D. ,,
SILVERTHORN, G., M.B. ,,
WILSON, G. E., M.B., F.R.C.S. ENG. ,,
WRIGHT, A. B., M.B. ,,
MOORHEAD, A. S., B.A., M.B., F.R.C.S. ENG. Asst.
ROBERTSON, D. E., M.B. ,,
WRIGHT, W. W., M.B. ,,

Dental Surgery [Demr.
MASON, A. D. A., L.D.S., D.D.S.

Therapeutics [Prof.
RUDOLF, R. D., M.D., C.M., F.R.C.P. L.

COLE, C. E. C., B.A., M.B. Demr.
Anæsthesia [Demr.
JOHNSTON, S., B.A., M.D., C.M.
MAC MILLAN, R. J., M.B. Asst.
Toxicology
ELLIS, W. H., M.A., M.B. Prof.

METALLURGY (v. also *Engin. Met.*)
GUESS, G. A., M.A. *Prof.
LOUDON, T. R., B.A.SC. *Lectr.

MINERALOGY and Petrography
WALKER, T. L., M.A. QU., PH.D. LEIP. Prof.
PARSONS, A. L., B.A. NEW YORK Asst. Prof. of *M.*
THOMSON, E. Demr. in *M.*
WYLIE, W. H., B.A.SC. Class and Mus. Asst.
ELLSWORTH, H. V. Fellow in *M.*

MINING, v. *Engin.*

PHILOLOGY
HORNING, L. E., B.A., PH.D. GÖTT. (V) Prof. (*Teutonic P.*).
THE J. MACDONALD PROF. OF *Latin* Prof. (*Comp. P.*).

PHILOSOPHY (v. also *Greek* and *Psych.*)
KIRSCHMANN, A., PH.D. LEIP. Prof. and Dir. of the Psych. Lab.
ABBOTT, A. H., B.A., PH.D. WÜRZ. Assoc. Prof. & Asst. in Psych. Lab.
TRACY, F., B.A., PH.D. CLARK Assoc. Prof.
ROBINSON, T. R., PH.D. Asst. Prof.
ROCHE, N. (M) Prof. of *Ethics.*
Ethics and Ancient Philos.
BRETT, G. S., M.A. OX. (T) Prof.
Ethics and Hist. of Philos.
HUME, J. G., B.A., A.M. HARV., PH.D. FREIBURG (C)† Prof.
Metaphys., Logic, and Hist. of P.
PURCELL, J. J. (M) Prof.

PHYSICS (v. also *Astro-P.* and *Chem.—Phys.*)
MC LENNAN, J. C., B.A., PH.D. Prof. and Dir. of the P. Lab.
BURTON, E. F., B.A. CAMB., PH.D. Assoc. Prof.
SATTERLY, J., M.A. CAMB., D.SC. LOND. Lectr.
ANDERSON, G. R., M.A. *Assoc. Prof.
GILCHRIST, L., M.A. Demr.
WILSON, W., M.SC. MANC., B.A. CAMB. Demr.
WALLACE, G. L., B.A.SC. *Demr.
ASBURY, F. C., B.A. Class and Lecture Asst.
CLINKSCALE, MISS C. E., B.A. ,,
SPENCELY, G. W., B.A. ,,
WIEGAND, W. B., B.A. ,,
BALL, MISS A. I. N., B.A. Class Asst.
REED, MISS A. T., B.A. ,,
FLEMING, MISS R. M. ,,
KENNEDY, W. T., M.A. ,,
KENNEDY, S. A., B.A. * ,,
MARTIN, MISS G. ,,
O'CONNOR, MISS F. B. S. ,,
EVANS, MISS R. M. Asst. Demr.
Hydraulics
TRAILL, J. J., B.A.SC. Lectr.
Mechanics
LOUDON, W. J., B.A. Prof.
Mechanics, Applied [Prof.
MC GOWAN, J., B.A., B.A.SC. *Assoc.
YOUNG, C. R., B.A.SC., A.M.CAN.SOC.C.E. *Asst. Prof.
GILLESPIE, P., B.A.SC., A.M.CAN.SOC.C.E. *Assoc. Prof.
LAING, A. T. *Lectr.
MARSHALL, R. J., B.A.SC. *Demr.
REDFERN, C. R., B.A.SC. *Demr.
YOUNG, A., B.A.SC. *Demr.

* In the Faculty of Applied Science and Eng.
† Also on the staff of the Univ.
(C) On Univ. Coll. staff.
(T) On Trin. Coll. staff.
(M) On St. Michael's Coll. staff.
(V) On Victoria Coll. staff.

Thermodynamics
GRAY, W. W., B.A.SC. *Lectr.

PHYSIOLOGY [Prof.
BRODIE, T. G., M.D. LOND., F.R.S.
THE PROF. OF *Biochem.* Prof.
DUNCAN, J. H., M.A. Demr.
COATSWORTH, R. C., B.A. Fellow.
O'SULLIVAN, P. M., B.A. Fellow.
DOUIE, MISS M. B., M.A. EDIN., M.B. LOND. Asst.

POLITICAL ECONOMY
MAVOR, J., PH.D. Prof.

POLITICAL SCIENCE [Prof.
LLOYD, G. I. H., M.A. CAMB. Assoc.
CUDMORE, S. A., B.A. OX. Lectr.
JACKSON, G. E., B.A. CAMB. Lectr.

PSYCHOLOGY
CUSHING, D., LL.D. (M) Prof.
SMITH, W. G., B.A. Asst. Prof.
Psychology and Philos.
LIDDY, R. B., M.A. Demr.
PRATT, E. J., M.A. Demr.

RELIGIOUS KNOWLEDGE
Biblical Greek [Geo. A. Cox Prof.
WALLACE, F. H., M.A., D.D. (V)
HAIRE-FORSTER, A. (T) Lectr.
Church Hist.
BOYLE, T. S., M.A., D.D. (T) Prof.
Cosmology and Rel. Knowl.
MEADER, F. D., B.A. (M) Prof.
English and Rel. Knowl.
HURLEY, A. E. (M) Prof.
Engl. Bible [A. Massey Prof.
JACKSON, G., B.A. LOND. (V) Hart
MACKLEM, T. C. S., M.A. CAMB., D.D., LL.D. TOR., N. BRUNS. (T) Lectr.
Latin and Rel. Knowl.
HAYES, T. J. (M) Prof.

SANITARY CHEMISTRY
LANCASTER, H. M. Spl. Lectr.

SURVEYING and Geodesy
STEWART, L. B., O.L.S., D.L.S. *Prof.
TREADGOLD, W. M., B.A. *Asst. Prof. of *S.*
CRERAR, S. R., B.A.SC. *Lectr.
BANTING, E. W., B.A.SC. *Lectr.

ZOOLOGY
BENSLEY, B. A., B.A., PH.D. COL. Assoc. Prof. and Asst. Cur. of Biol. Mus.
WALKER, E. M., B.A., M.B. Asst. Prof.
Vertebrate Embryology
COVENTRY, A. F., B.A. OX. Lectr.

CHANGES IN STAFF

Banting, E. W., promoted from Demr. to Lectr. in Elec. Eng.
Benzinger, I., apptd. Assoc. Prof. of Or. Lang. *vice* Eakin.
Bishop, W. S., apptd. Lectr. in Metallurg. Eng.
Burt-Gerrans, J. T., prom. from Demr. to Lectr. in Electro-Chem.
Clifton, E., apptd. Lectr. in Latin.
Coventry, A. F., apptd. Lectr. in Vertebrate Embryology.
Dale, E. A., apptd. Lectr. in Greek.
Eakin, T., Assoc. Prof. of Or. Lang., resigned.
Forster, J. M., prom. from Demr. to Assoc. in Psychiatry.
Garratt, A. H., Demr. in Clin. Surg., resigned.
Goldie, W., prom. from Assoc. to Assoc. Prof. of Clin. Med.
Guest, W. S., prom. from Demr. to Lectr. in Elec. Eng.

* In the Faculty of Applied Science and Eng.
(M) On St. Michael's Coll. staff.
(T) On Trin. Coll. staff.
(V) On Victoria Coll. staff.

Howland, G. W., prom. from Demr. to Assoc. in Clin. Med.
Hutchison, H. S., prom. from Demr. to Assoc. in Clin. Med.
Jackson, Jr., M. B., apptd. Lectr. in Mech. Eng.
Langstaff, J. M., prom. from Demr. to Lectr. in Accountancy.
MacDonald, W. L., apptd. Lectr. in English.
McGillivray, D., prom. from Demr. to Assoc. in Clin. Med.
Northup, G. T., apptd. Asst. Prof. in Italian and Spanish.
Perry, S. W., apptd. Lectr. in Fac. of Education and Asst. Instr. in Univ. Schools.
Richardson, T. B., prom. from Demr. to Assoc. in Clin. Surg.
Satterly, J., apptd. Lectr. in Physics.
Smissen, W. H. van der, Prof. of German, resigned.
Smith, G. M., apptd. Lectr. in History.
Smith-Gordon, L., apptd. Lectr. in Ancient History.
Stevenson, G. S., prom. from Lectr. to Assoc. Prof. of English.
Thomson, R. B., prom. from Lectr. to Assoc. Prof. of Botany.
Watson, B. P., apptd. Prof. of Gynæc. and Obstetrics *vice* Wright.
Will, J. S., prom. from Lectr. to Assoc. Prof. of French.
Wright, A. H., Prof. of Obstetrics, resigned.
Wright, R. R., Prof. of Biology, resigned.

GENERAL INFORMATION

Faculties. Arts (including Science) ; Medicine ; Applied Science and Engineering ; Education ; Forestry ; Household Science. That of Law lapsed in 1897, but degrees are given on a prescribed course for which the Univ. provides only the non-professional teaching, the rest being given at Osgoode Hall, the School of the Law Society of Upper Canada. In Arts the undergraduate work is conducted in the four Colls. of the Univ. In Household Science the staff are mainly concerned with the training of occasional students. In Applied Science and Engineering there are 7 regular Depts. : Archit., Chem. (Analytical and Applied), and 5 branches of Engin., namely, Chem., Civil, Elec., Mech. and Elec., Mining. There are also Degree courses in Agric., Dentistry, Music, Pharmacy, and Vety. Science, in which instruction is given in affiliated institns. *Deans of Faculties :* Arts—A. Baker, M.A. ; Med.—C. K. Clarke, M.D., LL.D. (Secy.—A. Primrose, M.B., C.M.) ; Applied Sc.—J. Galbraith, M.A., LL.D. (Secy.—A. T. Laing, B.A.Sc.) ; Educn.—W. Pakenham, B.A. ; Forestry—B. E. Fernow, LL.D.

University Terms. The academic year 1913–14 began on Sept. 30. First term ends on Dec. 19. Easter begins Jan. 6 and ends May 23. The Summer session 1914 will begin July 2 and end Aug. 8. In Applied Science the Easter term ends April 30.

Degrees and Diplomas. Arts—B.A., M.A., Ph.D. ; Law—LL.B., LL.M., LL.D. (Honorary) ; Medicine—M.B., M.D. ; Applied Science and Engin.—B.A.Sc., M.A.Sc., and Chem.E., C.E., E.E., M.E. (signifying Chemical, Civil, Electrical, Mechanical or Mining Engineer) ; Education—B.Pæd., D.Pæd. ; Forestry—B.Sc.F., F.E. (signifying

Forest Engineer); Dentistry—D.D.S.; Music—Mus.Bac., Mus.Doc.; Veterinary Science—B.V.Sc., D.V.Sc.; Pharmacy—Phm.B.; Agriculture—B.S.A. *Diplomas* in Pub. Health, Phys. Training, Educn., Forestry.

There are annual examns. for all Univ. students preparing for degrees. Admission of students to examns. is dependent on a good report of work done during the year.

Arts. Minimum age of admission of matriculated students is 16, non-matriculated 19. Every student entering for the B.A. must register in the Univ. and enrol in one of the Colls. of the Univ. The course for the B.A. extends over 4 yrs. A certificate of having passed the Senior Ox. or Camb. Local or one of certain other examns. will enable a candidate to enter at the 2nd yr. of the general course or the Pol. Science or Philos. course if he is not less than 17 (or, in the case of a non-matriculated student, 20) yrs. of age. Special arrangements are made to assist teachers and others unable to attend the regular classes, by means of (1) Teachers' courses held at hours convenient for teachers, and (2) a Summer session.

The Ph.D. implies 3 yrs. of advanced study in the Univ. under the direction of profs., and evidence of high attainments and an original investigation constituting a distinct contribution to knowledge.

Combined courses may be taken for degrees in Arts and Medicine and in Arts and Forestry.

Law. The first 2 yrs. may be taken in Arts in the Univ., but are usually taken at Osgoode Hall. The minimum age for Matriculation is 21.

Medicine. The course for M.B. extends over 5 annual sessions of 8 mos. each. The Genl. Hospl. contains 600 beds. St. Michael's has 250, the Children's Hospl. 160, and the Western 200.

Applied Science. The course for the B.A.Sc. extends over 4 yrs. Minimum age for admission, 17. Mining Engin. students must, before they can be admitted to the degree, have had 6 months practical experience; Mech. and Elec. Engin. students, 8 mos. For the Professional degrees (C.E., &c.) 3 yrs. practice in the profession after graduation, a thesis, and the passing of an examn. are required.

Education. Minimum age for admission, 19. Matriculation in the Faculty is equivalent to entrance into the 2nd yr. in Arts. Candidates for admission to the courses are medically examined as to their physical fitness. The Educn. Dept. of the Govt. of Ontario grants certificates (3 interim and a Pub. Sch. Inspector's) on the results of Univ. examns. The certifs. entitle the holders to teach in the Public Schools. The 3 interim certifs. are converted into full certifs. after a period of successful teaching. All teachers for the upper grades of Public and High Schools and Colleges in Ontario must spend at least 1 yr. in the Faculty of Education of Tor. or Queen's. The qualifications

for the B.Pæd. degree are (*a*) a degree in Arts of any British Univ., (*b*) a High School Asst.'s or equivalent Certif., (*c*) 2 yrs. successful experience of teaching, and (*d*) passing an examn. in the Univ. Additional qualifications required for the D.Pæd. are either Honours or a Provincial Certif. of specialist or the B.Pæd.; 3 yrs. successful experience as teacher or inspector; and passing an examn. (*See* notes *under* "Arts" regarding summer session, &c.)

FORESTRY. The course for the B.Sc.F. covers 4 yrs., but a diploma can be obtained after the first 3, and the 4th may be taken at any subsequent time. German is a compulsory subject. The F.E. is granted after 3 yrs. employment in forestry work and the presentation of a satisfactory thesis.

HOUSEHOLD SCIENCE. The course (for which a special building and elaborate equipment have been provided) has hitherto been taken by women only. There is no degree given for this faculty alone. Special courses are given covering 1 or 2 yrs. The subject is included in courses for the B.A. degree.

AGRICULTURE. The B.S.A. course (4 yrs.) must be taken at the Ontario Agric. Coll. at Guelph. Students who have completed satisfactorily 2 yrs. instruction there are admitted to 3rd yr. standing in the Univ. Candidates from any reputable Univ. may on production of suitable certifs. proceed to the examn. for the degree.

DENTISTRY. The D.D.S. degree implies attendance during 4 annual sessions.

MUSIC. Examns. of 3 grades are held at local centres and certifs. awarded. There is also an examn. for the Diploma of Licentiate in Music.

PHARMACY. For the Phm.B. degree candidates must have passed the final examn. of the Ontario Coll. of Pharmacy or have spent 4 yrs. in the study of Pharmacy under suitable conditions.

PHYSICAL TRAINING. There is a 2 yrs. course leading to the Diploma.

PUBLIC HEALTH. The examn. for the Diploma is open to graduates of any recognized Univ.

VETERINARY SCIENCE. Candidates for the B.V.Sc. must have studied for 3 yrs. partly at the Ontario Vet. Coll. or some Coll. recognized by it, and partly at the Univ. The D.V.Sc. is given to Bachelors who have pursued for 1 yr. a special research in the Science laboratories.

POST-GRADUATE STUDY AND RESEARCH. The Classics and History courses at Ox. attract graduates in Arts from this Univ. in considerable

numbers ; others go to Harv., Col., and Chic. ; students of Phys. to Camb. ; Theol. students to Glas., Edin., Ox., and Camb. ; Med. students to Edin., Lond., and J. Hopk. Germany draws some students in Med., but more in Science. The Flavelle Travelling Fellowship and Rhodes Scholarship take others to Ox.

Residential Facilities. Accommodation exists for 150 men in the 3 Univ. residences, for 90 women in Queen's Hall (Univ. Coll.), for 116 and 80 men respectively in Burwash and Annesley Halls (Vict. Coll.), for 100 men in Trin. Coll. residence, and for upwards of 50 women in St. Hilda's Coll. St. Michael's Coll. is also a residence for men. The Univ. keeps a list of houses approved by the Y.M.C.A. authorities, and another of houses approved by a committee of ladies.

Women have the same privileges and attend the same lectures as men students, but special instruction is given in some subjects of the medical course.

Scholarships for Graduates. Jubilee Scholarship $120, tenable for 2 yrs., for the most deserving Bachelor of the year intending to complete Div. course in Trin. Coll. and present himself for Holy Orders ; Alex. Mackenzie Fellowships in Pol. Sc. for grads. of Univ. of Tor., two of $375 each tenable for one year and renewable for a 2nd, for special studies to be prosecuted by the holder at the Univ. of Tor. under the direction of the head of the Dept. ; G. P. Young Memorial Fellowship in Philos., $300, open to B.A. with honours in Philos., tenable 1 yr. in any Univ. approved by the Faculty ; to be offered in 1915 in the Honour Course in Engl. and Hist., Flavelle Travelling Fellowship of $750 p.a., tenable for 2 yrs. in the Mod. Hist. School of Oxford.

The Library contains upwards of 128,000 vols. and 40,000 pamphlets. The annual grant for purchase of books is $15,000. 600 periodicals are subscribed for and 850 others received. Federated and affiliated institns. are allowed access to the Library.

Museums, &c. The Univ. has very extensive laboratories for the Depts. of Applied Science as well as Anat., Biol., Chem., Geol., Household Sc., Path., Phys., and Physiol. It has a Geol. and Mineral. Museum. Trinity has a Nat. Hist. and Archæol. Museum of its own. The Agric. Coll., Knox Coll., Vet. Coll., and School of Dentistry have each a museum. The Ontario Provincial Museum, under the direction of and maintained by a Board of Trustees chosen by the Govt. and the Univ. of Toronto, is in Toronto. It has the largest collection of archæol. material in the Dominion. The specimens, together with those of the Ethnol. Dept., number over 33,000. An educational section contains specimens of school apparatus, &c. There is a gallery of paintings by Canadian artists, and a collection of Italian, Dutch, and Flemish pictures.

UNIVERSITY EXTENSION, *v. supra under* "Arts" regarding Summer session, &c.

PUBLICATIONS. The *School* (by the Faculty of Educn.) and the *Medical Bulletin*, recently started. Other Univ. publicns. are: *Univ. Studies*, about 100 up to date, including monographs on matters pertaining to Anat., Biol., Chem., Geol., Hist. and Econ., Path., Philol., Phys., Physiol., Psych.; Reports of the President and of the Board of Govrs.; *Univ. Monthly*; students' publicns.: *Arbor, 'Varsity, Torontonensis*; Mem. (1912) on the development of the Univ. during last 6 yrs. The *Calendars* of the several faculties are issued in April and May; the Smithsonian Inst., Washington, distributes them throughout the U.S.A., and formerly distributed copies to European Univs. The exchange list covers about 400 institns. (*v. also* p. 316).

AFFILIATED COLLEGES

ONTARIO AGRICULTURAL COLLEGE, GUELPH

President—G. C. CREELMAN, B.S.A., LL.D.

DAY, G. E., B.S.A. **Animal Husb.*
WADE, R. W., B.S.A. Assoc. Prof.
PETTIT, M. *†Apiculture.*
EDWARDS, S. F., M.S.A. **Bact.*
JONES, D. H., B.S.A. *†Bact.*
HOWITT, J. E., M.S.A. **Botany.*
MC CUBBIN, W. A., M.A. *†Botany.*
HARCOURT, R., B.S.A. **Chemistry.*
FULMER, H. L., B.S.A. *†Chemistry.*
JACKSON, L. D., B.A. Demr., *Chemistry.*
DEAN, H. H., B.S.A. **Dairy Husb.*
LE DREW, H. H., B.S.A. *†Econ.*
REYNOLDS, J. B., B.A. **English.*
BETHUNE, C. J. S., M.A., D.C.L. **Entom. and Zool.*
JARVIS, T. D., B.S.A. Assoc. Prof.
ZAVITZ, C. A., B.S.A. **Field Husb.*
SQUIRREL, W. J., B.S.A. † ,,
HUNT, W. *†Floriculture.*
ZAVITZ, E. J., M.S.F. **Forestry.*
CAESAR, L., B.S.A. *†Fungous Dis. and Insects.*
HUTT, H. L., B.S.A. **Landscape Gard.*
DAY, W. H., B.S.A. **Physics.*
CROW, J. W., B.S.A. **Pomology.*
GRAHAM, W. R., B.S.A. **Poultry Husb.*
MC CULLOCH, A. C., B.S.A. Demr.

ROYAL COLLEGE OF DENTAL SURGEONS, TORONTO

President—W. J. BRUCE, D.D.S.
Secy.—J. B. WILLMOTT, D.D.S.
Registrar—D. CLARK, D.D.S.
Faculty—21 DENTAL SURGEONS.

TORONTO COLLEGE OF MUSIC

Director—F. H. TORRINGTON, MUS.DOC. TOR.
Secy.—MOLNA O'CONNOR.

TORONTO CONSERVATORY OF MUSIC

President—SIR JOHN A. BOYD, K.C.M.G.
Musical Director—A. S. VOGT, MUS.DOC.
Secy.-Treasurer—H. J. BOHME.

* Professor. † Lecturer.

HAMILTON CONSERVATORY OF MUSIC

President—C. R. MC CULLOCH.
Secy. - Treasurer and Managing Director—B. A. CAREY.
Musical Directorate—J. E. P. ALDOUS, W. H. HEWLETT, MUS.BAC., B. A. CAREY.

ONTARIO COLLEGE OF PHARMACY, TORONTO

President of Council—ALEX. STEWART.
Registrar - Treasurer — W. R. GRAHAM.
Faculty—C. F. HEEBNER, PHM.B., PH.G., ; P. L. SCOTT, M.B. ; J. T. FOTHERINGHAM, B.A., M.B. ; G. CHAMBERS, B.A., M.B. ; G. A. EVANS, PHM.B.

ONTARIO VETERINARY COLLEGE, TORONTO

Principal—E. A. A. GRANGE, V.S., M.S.

ALBERT COLLEGE, BELLEVILLE

WESTERN CANADA COLLEGE OF CALGARY

COLUMBIAN METHODIST COLLEGE, NEW WESTMINSTER

*ONTARIO LADIES' COLLEGE, WHITBY

Governor and Principal—J. J. HARE, PH.D.
Lady Principal—MISS TAYLOR, B.A.
Secy.—W. J. GREENWOOD, B.A.
Instructive Staff—30.

*ALMA COLLEGE, ST. THOMAS, ONT.

Presidents of the Board — A. CARMAN, D.D., LL.D. ; S. D. CHOWN, D.D.
General Secretary of Educn.—J. W. GRAHAM, M.A., D.D.
Principal—R. I. WARNER, M.A., D.D.
Lady Principal—ELLA D. BOWES, B.A.
Registrar and Secy. of Council—ALICE F. HENWOOD, B.A.

†ST. HILDA'S COLLEGE, TORONTO

(The Women's Residence for Trinity Coll.)

Lady Principal—MISS MABEL CARTWRIGHT, B.A.

THE YEAR 1912–13

BENEFACTIONS RECEIVED. $15,000 per annum for 5 yrs. for Med. Research. Funds for a Lectureship in Metall. for 2 yrs. $10,000 for a Fellowship in Anat. (in memory of Dr. J. B. Richardson, late Prof. of Anat.). In Jan. the new Household Science building given by Mrs. Massey Treble was opened.

A NEW DEPARTMENT of non-ferrous metall. has been developed. Instruction in Ceramics has been provided for.

* Affiliated with Vict. Univ. at time of federation.
† Affiliated with Trinity Univ. at time of federation.

NUMBER OF STUDENTS. *Arts Faculty*—1st, 2nd, 3rd, and 4th yr. students in the Colls., 1639 (including 543 women); occasional, 234 (54 women); preparing for Ph.D. and M.A., 139 (29 women); Dental, 60; Teachers' Course, 11 (8 women); Summer session, 154 (107 women); Ontario Vet. Coll., 186. *Med.*—598 (19 women); Applied Sc., 680; Educn., 350 (219 women); Household Sc., 104 (women); Forestry, 44. Total, less duplicates, about 4150. Evening students of Archit. from 17 firms of architects, 21. Students for M.A., 115; for Ph.D., 24. Research Fellows, 15; Research students in Europe or America, 20.

HONORARY DEGREES during past year: LL.D., 4; D.Sc., 1.

CHANGES OF POLICY. The pass matricn. standard has been raised in all faculties, and a higher grade for entrance into the Faculty of Applied Sc. has been prescribed. General course for B.A. degree has been raised.

ADDITIONS TO BUILDINGS, &c. A new Pathological building; wing of New Royal Ontario Museum; Household Science building; accommodation of Hospl. increased to over 600 beds; Univ. organ.

ADDITIONS TO AMENITIES. Construction of Hart House (given from Hart. S. Massey estate "for all men's activities") has begun.

A RESIDENCE for Junior members of Faculties has been provided. The Univ. Coll. Residence for women has been added to.

ADDITIONS TO LIBRARY. The Goldwin Smith Library.

CONFERENCES. The Matricn. Conference of Univs. met at Toronto in Dec. and the Ontario Educational Assocn. in March, as usual.

UNIVERSITY OF TRINITY COLLEGE, TORONTO

VICE-CHANCELLOR AND PROVOST	T. C. S. MACKLEM, M.A., D.D., LL.D.
REGISTRAR	A. H. YOUNG, M.A.
DEAN OF RESIDENCE	H. T. F. DUCKWORTH.
DEAN OF THE FACULTY OF DIVINITY	T. S. BOYLE, M.A., D.D.
LIBRARIANS	G. S. BRETT, M.A. R. E. L. KITTREDGE, M.A.
PRINCIPAL OF ST. HILDA'S COLLEGE FOR WOMEN	Miss M. CARTWRIGHT, B.A.

PROFESSORS, LECTURERS, ETC., IN DIVINITY

[*See also* the consolidated list under the Univ. of Toronto, in which appear the names of 18 Profs. and Lectrs. on the Staff of Trin. Coll. under the heads Hist., Langs., Philos., and Religious Knowledge.]

Apologetics
CAYLEY, E. C., M.A. TRIN. Spl.Lectr.

Church Hist. and Patristics
THE DEAN OF THE FACULTY (Lectr. also on *Catechism and Prayer Book*) *Prof.

Divinity
THE PROVOST Prof.
BIDWELL, RT. REV. E. J., M.A. OX., D.D. Lectr. (Hon.).

Eccl. Polity
THE DEAN OF RESIDENCE Lectr.

Homiletics, Elem., & Dogmatics
MACLEAN, J. R., M.A. Lectr.

Homiletics [Lectr. (Hon.).
WALLACE, T. G., M.A. DUB.

New Testament, &c. [†Lectr.
HAIRE-FORSTER, A., B.A., B.D. DUB.

Old Testament *[Lectr.
COSGRAVE, F. H., B.A., B.D. DUB.

Pastoral Theology [Lectr.(Hon.).
SMITH, J. P., M.A., LITT.D. DUB.

GENERAL INFORMATION

Trinity College is federated with the Univ. of Toronto and forms an integral part of it in the Faculty of Arts, but remains entirely independent and itself confers degrees in the Faculty of Divinity. Distinguishing features of the Coll. are — Religious Instruction, Chapel services, and residences for men and women. One residence for men is in the building containing the Lecture rooms. The other is known as Trinity House. The residence for women, St. Hilda's Coll., is supplemented by 2 other houses. Altogether there is accommodation for about 100 men and 50 women. There are also non-resident undergrads. living at home or in lodgings.

A 4 years course leads to the L.Th. of Trin. Coll. ; a 5 years course to the Pass B.A. of the Univ. of Tor. and the Div. Testamur of Trin. Coll. ; a 6 years course to Honours or Pass B.A. of Tor. and the Div. Testamur of Trin. Coll. ; an extra year may be taken in Honours Theol. The academic year has 2 terms, as in the other Toronto Colls.

The regns. for the B.D. and D.D. distinguish between candidates residing within and those residing outside the Eccl. Provinces of Canada. To the former the Canon on Div. degrees is applied (*see* Appendix VI). The latter must be graduates in Arts of 3 or ordained clergymen of 5 years standing. The D.D. is open only to B.D.s of 5 years standing.

* Also Prof. in the Faculty of Arts.
† Also Lectr. in the Faculty of Arts.

SCHOLARSHIPS FOR GRADUATES. A Jubilee Scholarship of the annual value of $120 tenable for 2 years in the Div. class is offered every year. It is open to candidates who have taken their Arts course in Trin. Coll.

LIBRARY. About 13,000 vols.

MUSEUM. Nat. Hist.

PUBLICATIONS. *Trin. Univ. Year Book*, pubd. in July ; *Calendar*, pubd. with that of the Univ. of Tor. in May ; *Review* ($1) ; *St. Hilda's Chronicle* ($1).

THE YEAR 1912–13

BENEFACTIONS RECEIVED. Additions to the endowment amount to $170,000.

NEW POSTS CREATED. Lectr. in Hebrew and Div. ; Extension Prof. of Engl. ; a Reader in Engl. and German.

NUMBER OF STUDENTS, 193 (including 63 women), viz. Arts 1st 3 years, 110 (including 50 women) ; 4th year, 25 (including 8 women) ; L.Th. and Div. class, 35 ; Post-grad. in Arts, 14 (including 9 women) ; in Div., 9 ; occasional, 1 (woman) ; enumerated twice, 1.

DEGREES CONFERRED. Honorary : *D.D.*—Rt. Rev. H. J. Hamilton, B.A. Tor., Bp. of Mid-Japan. Other—L.Th., 3 ; B.D., 3.

ADDITIONS TO BUILDINGS. The present site of the Coll., which is in a manufacturing quarter, has been sold to the City of Toronto. The new site, at Queen's Park, is near to the Univ. of Toronto and was given by the Board of Govrs. of the Univ. in consideration of Trinity relinquishing after removal the right, conferred by the federation agreement, to duplication of lectures by members of the Univ. staff in Univ. subjects.

VICTORIA UNIVERSITY, TORONTO

[Established in 1836 by Royal Charter as "Upper Canada Academy." Name changed to Victoria College in 1841, when power was obtained to grant degrees in Arts, Theology, Medicine, and Law. Name changed to Victoria University in 1884. Federated in 1890 with Toronto.]

PRESIDENT — R. P. BOWLES, M.A., D.D., LL.D.

REGISTRAR — A. L. LANGFORD, M.A.

PROFESSORS, LECTURERS, ETC.

[*See also* the consolidated List under Univ. of Toronto, in which appear the names of 19 Profs. and Lectrs. on the Staff of Vict. Coll. under the heads Langs., Philology, and Religious Knowledge.]

HISTORY, Ancient [Lectr.
DALE, E. A., M.A. OX. Sessional

LANGUAGES and Literature
English Literature [Lectr.
STANLEY, C. W., B.A. TOR. AND OX.
Oriental Langs. and Lit.
HOOKE, S. H., B.A., B.D. OX.
J. W. Flavelle Assoc. Prof.

PHILOSOPHY and Theology
Ethics and Didactics
LANE, W. B., M.A., PH.D. Prof.
Ethics and Apologetics
BROWN, W. T., M.A., PH.D. Lectr.
History of Doctrine [Prof.
BURWASH, N., S.T.D., LL.D., F.R.S.C.
History, Church
REYNAR, A. H., M.A., LL.D. Lectr.
Methodist Discipline
LANGFORD, A., D.D. Special Lectr.
New Test. Exeg. and Lit. and Bib. Greek
MICHAEL, J. H., B.A. Assoc. Prof.
Public Speaking
GREAVES, W. H., M.A. Assoc. Prof.
System. Theol. and Homiletics and Pastoral Theol.
BOWLES, R. P., M.A., B.D. Ed. Jackson and Margaret Cox Prof.

CHANGES IN STAFF

Blewett, G. J., B.A., Ph.D., Prof. of Ethics and Apol., deceased.
Bowles, R. P., Prof. of Syst. Theol., &c., apptd. *vice* Burwash.
Brown, W. T., of Bowdoin Coll., Brunswick, Maine, apptd. *vice* Blewett.
Burwash, N., S.T.D., LL.D., F.R.S.C., President, resigned.
Hooke, S. H., of Jesus Coll., Ox., apptd. Assoc. Prof. of Oriental Langs. and Lit.
Jackson, G., B.A., Prof. of Engl. Bible, resigned.
Lane, W. B., M.A., Ph.D., of Randolph-Macon Women's Coll., Lynchburg, Va., apptd. *vice* Blewett.
Massey, C. V., B.A., apptd. Junior Dean of Burwash Hall (the Men's Residence).
Michael, J. H., apptd. Assoc. Prof. of New Test. Exeg. and Lit.
Stanley, C. W., B.A., apptd. Lectr. in Engl. Lit.

GENERAL INFORMATION

Victoria College, in so far as its Arts Faculty is concerned, is a Coll. of the Univ. of Toronto, taking up all the work, both Pass and Honours, for the degree of B.A. in "College subjects" (Languages, Ancient Hist., and Ethics). In so far as its Theol. Faculty is concerned it prepares candidates for the Ministry of the Methodist Church of Canada and for its own degree of B.D.

ADMISSION. The examns. and other conditions for admission are those of the Univ. of Toronto.

TERMS, 1913–14. Michs. begins Sept. 30 ; Easter begins Jan. 6.

The COURSES for the B.A. degree are those of the Univ. of Toronto. The course for the B.D. degree covers 3 years. Candidates for the degree must be graduates in Arts of at least 2 years standing and ministers or candidates for the Ministry in good standing in some branch of the Christian Church. They must have attended lectures exclusively in Theol. for 2 years after graduation. For probationers who are not proceeding to a degree a 3 years conference course is provided, qualifying for the Ministry of the Methodist Church when taken in continuation of a 2 years course taken on circuit. A 3 years conference course is also provided for graduates in Arts.

RESIDENTIAL FACILITIES. There are 2 residences, Annesley Hall and South Hall, with accommodation for about 75 women students. Another, to be known as Burwash Hall, has been built and equipped (at a cost of about $400,000) for 120 men.

The LIBRARY contains the C. C. James Collection of Canadian Verse, and a large amount of material bearing on the development of Methodism in Canada and of educational institutions in Ontario.

PUBLICATIONS. The *Calendar* (for the Faculty of Theol.), pubd. about May ; the *Bulletin*, pubd. annually about July, containing general information about the Univ. ; *Acta Victoriana*, the students' monthly magazine.

THE YEAR 1912–13

NUMBER OF STUDENTS. Full-time students preparing for the B.A. degree, 427 (including 139 women) ; occasional (Arts), 83 (7 women) ; Bachelors preparing for the Master's or Doctor's degree, 14.

HONORARY DEGREES CONFERRED. *D.D.*—George H. Bridgeman, M.A., D.D., LL.D., St. Paul, Minn., U.S. ; Joseph J. Ferguson, M.A., B.D. Tor.

OTHER DEGREES. B.D., 4 ; B.A. (under federation conferred by the Univ. of Toronto), 93 (including 36 women).

ADDITIONS TO BUILDINGS. New residence for men (*v. supra*, "Residential Facilities"). The funds were provided from the Hart A. Massey estate. It is to be enlarged so as to accommodate 150.

UNIVERSITY OF WALES

[Founded by Charter Nov. 20, 1893. Supplemental Charter Aug. 15, 1906.]

VISITOR AND CHANCELLOR	H.M. THE KING.
DEPUTY CHANCELLORS	The Right Hon. LORD KENYON, K.C.V.O. J. LYNN THOMAS, C.B., F.R.C.S.
VICE-CHANCELLOR*	Principal T. F. ROBERTS, M.A., LL.D., University College of Wales, Aberystwyth.
WARDEN OF THE GUILD OF GRADUATES	F. D. CHATTAWAY, D.Sc., F.R.S.
CLERK OF THE GUILD OF GRADUATES	J. G. DAVIES, M.A., Wernfield, Neath.
PRESIDENT OF THE THEOLOGICAL BOARD	Prof. Sir EDWARD ANWYL, M.A.
DEAN OF DIVINITY	Rev. Principal WILLIAM EDWARDS, D.D.
TREASURER	Lieut.-Gen. Sir JAMES HILLS-JOHNES, V.C., G.C.B.
REGISTRAR	J. MORTIMER ANGUS, M.A., University Registry, Cathays Park, Cardiff.

CONSTITUENT COLLEGES. University College of Wales, Aberystwyth; University College of North Wales, Bangor; University College of South Wales and Monmouthshire, Cardiff.

GENERAL INFORMATION

The University itself has no teaching staff. It organizes examns. and grants degrees, but the 3 constituent Colls. are independent bodies with separate charters and government, and the Univ. has no direct control over them.

FACULTIES. Arts or Letters, Science, Theology or Divinity, Law, Medicine, Music.

* The Principals of the 3 constituent Colls. hold the Vice-Chancellorship in turn for a period of 2 yrs. Principal Roberts entered on the office on Sept. 1, 1913.

MATRICULATION. The Statutes require that candidates for Matricn. shall have attained the age of 16, passed the Matricn. examn. or some examn. recognized as equivalent thereto, and entered one of the constituent Colls. or, being grads. of some Univ. or Coll. empowered to grant degrees, entered a Theol. Coll. approved and accepted by the Court. Every person who matriculates in the Univ. thereby becomes a student of the Univ. and is entitled to pursue a "scheme of study" for a degree in it.

DEGREES, &c. Arts—B.A., M.A., D.Litt., D.Phil.; Science—B.Sc., M.Sc., D.Sc.; Divinity—B.D., D.D.; Law—LL.B., LL.M., LL.D.; Medicine—M.B., B.Ch., M.D., M.Ch.; Music—B.Mus., M.Mus., D.Mus. Certifs. and Diplomas are granted in Educn. and in Pub. Health.

The Univ. approves, but does not originate, the curricula of study. While often identical for the 3 Colls., there is a certain amount of freedom of divergence consistent with uniformity of standard. The courses in the several subjects are not grouped into fixed combinations in which candidates must pass in all subjects at the same time. Each grade (or year's work) in each subject has a separate pass list, and a candidate gets credit for passing the particular examn. without reference to his success or failure in other examns. A candidate chooses (under the advice of his Coll. and subject to regns.) the subjects and courses out of which he will construct his scheme. When he has passed the required number (distributed over at least 3 yrs. study and under certain conditions of sequence of study), he thereby completes his scheme and is entitled to his degree.

EXAMINATIONS are conducted by external and internal examiners acting jointly. No candidate can pass in any examn. without the assent of the external examr.

ARTS. Honours courses may be taken in Greek, Lat., Engl., Welsh, French, Ger., Heb., Arabic, Persian, Sanskrit, Hist., Philos., Pure Maths., Applied Maths., Econ. and Pol. Sc., Educn. Welsh enjoys no preferential treatment and is not at any stage compulsory.

SCIENCE. Honours courses may be taken in Pure Maths., Applied Maths., Philos., Econ. and Pol. Sc., Physics, Chem., Bot., Zool., Geol., Physiol., Hum. Anat.

THEOLOGY. The constituent Colls. are precluded by their charters from teaching Theol. The B.D. requires 3 yrs. study subsequent to graduation in the U.K. in Arts or Science and pursued at a Theol. Coll. approved for the purpose. The examn. involves no expression of persuasion or belief.

LAW. The qualifying period of study for the Bachelorship is 4 yrs., reduced by 1 in the case of a candidate who has qualified for a degree in any Univ. in the U.K.

MEDICINE. Under the Supplemental Charter of 1906 the Univ. grants degrees in Med. and Surg. based on a 6 yrs. period of study, of which at least 3 yrs. must be pursued in a constituent Coll. One of the qualifications for the M.B. and B.Ch. is graduation in Arts or Science in a British or some other approved Univ. The course for the D.P.H. extends over 9 mos.

RESEARCH. The M.A., M.Sc., or LL.M. degree may be granted in recognition of research to a member of the Guild of Grads. or, after pursuance in a constituent Coll. for at least 2 yrs. of a scheme of research approved by the Univ., to a grad. of, or person who has completed a degree scheme in, any Univ. approved for the purpose. The Univ. has funds amounting to £2000 p.a. for the encouragement of research. In addition to 8 Fellowships the Univ. awards studentships on the nomination of the Colls. to students who after graduation in Arts or Science engage in work preparatory to research for 1 or 2 yrs. and are then eligible for Fellowship. These studentships have proved a valuable training-ground for higher work. Twelve grads. held Research studentships and 11 held Fellowships in 1912–13. Forty-eight candidates submitted dissertations and works for the higher degrees in 1913, viz. for M.A., 36; M.Sc., 6; D.Sc., 4; M.Mus., 1; LL.M., 1.

POSITION OF WOMEN. Article I of the Charter provides that women shall be eligible equally with men for admittance to all degrees and that every office in the Univ. and membership of every Univ. authority shall be open to women equally with men.

APPOINTMENTS. The Univ., in union with the Appointments Assocn. for Wales, has established an Apptmts. Board for Wales (Secy., R. Silyn Roberts, M.A., Univ. Registry, Cathays Park, Cardiff). The Board is prepared to register not only students of the Univ. but also boys and girls above the age of 15 from the Secondary Schools, Tech. and Evening Institns., and Higher Elem. Schools of Wales, but will not for the present deal with ordinary educational apptmts.

PUBLICATIONS RELATING TO THE UNIV. The *Calendar*, pubd. in Nov.; "The Univ. of Wales and its Educational Theory" (address by Isambard Owen, M.A., M.D., pubd. in *Journal of Educn.*, May 1898); "The Univ. of Wales and its constituent Colls.," by W. Cadwaladr Davies and W. Lewis Jones, 1905.

THE YEAR 1912–13

NUMBER OF DEGREES for which candidates qualified in 1913. D.Sc., 1; M.A., 23 (including 3 women); M.Sc., 4; M.Mus., 1; LL.M., 1; B.A., 199 (including 74 women); B.Sc., 60 (including 46 women).

ASSOCIATED THEOLOGICAL COLLEGES

ABERYSTWYTH, THE THEOLOGICAL COLLEGE. *Principal*: O. Prys, M.A., Prof. of *Philos. of Relig. and Dogm.* Other Profs.: Evans, J. Young, M.A., B.D. (*Church Hist. and Hist. of Doctrine*); Jones, E. Norman, M.A. (*Hebrew and O.T. Exeg. and Introduction*); Williams, David, M.A. (*N.T. Theol. and Exeg.*).

BALA, THE THEOL. COLL. *Principal*: Ellis Edwards, M.A., D.D., Lectr. in *Christian Doctrine.* Other Lectrs.: Morris, Richard, M.A., B.D. (*Church Hist.*); Phillips, D., M.A. (*Philos. and Hist. of Relig.*); Porter, W., M.A., D.Litt. (*Hebrew and O.T. Exeg.*); Thomas, J. O., M.A. (*Hellen. Greek and Greek N.T.*).

BANGOR, THE BAPTIST-CONGREGATIONAL JOINT SCHOOL OF UNIVERSITY THEOLOGICAL STUDIES. *Principals*: Silas Morris, M.A., Prof. of *N.T. Canon and Exeg.*, and Thomas Rees, M.A., Prof. of *Christian Ethics, Dogm., Philos. of Relig. and Theism.* Other Profs.: Evans, J. T., M.A., B.D. (*Hebrew, and O.T. Canon and Exeg.*); Jones, J. Morgan, M.A. (*Church History*); Rhys, T., B.A. (*Apolog., Bibl. Knowl., N.T. Canon and Exeg.*).

BRECON, THE MEMORIAL COLLEGE. *Principal*: T. Lewis, M.A., B.D., Prof. of *Hebrew Bible and Lit.* Other Profs.: Edwards, D. Miall, M.A. (*Apol., Dogm., and Philos. Theism*); Evans, John, B.A. (*Church Hist.*); Jones, Joseph, M.A., B.D. (*Greek Test. and Lit., Hellen. Greek and Text. Crit.*).

CARDIFF, THE S. WALES BAPTIST COLLEGE. *Principal*: William Edwards, B.A., D.D., Prof. of *N.T. Greek and Crit. and Theol. of N.T.* Other Profs.: Chance, T. W., M.A. (*Church Hist.*); Davies, J. M., M.A. (*Philos., Theol., Apol. and Doctrine*); Evans, D. Tyssll, M.A., B.Sc (*Hebrew and O.T. Crit.*).

CARMARTHEN, THE PRESBYTERIAN COLLEGE. *Principal*: Walter J. Evans, M.A., Lectr. on *Greek Test., Doctrinal and Hist. Texts.* Other Lectrs.: Moore, Philemon, B.A. (*Hebrew and O.T.*); Owen, M. B., B.A., B.D. (*Church Hist. and N.T., Holy Script.*); Stephens, J. O., B.A., B.D. (*Church Doct., Philos. of Relig.*).

Other Colls. approved and accepted for the purpose of the regns. for the B.D. degree are ST. DAVID'S COLLEGE, LAMPETER, and, for grads. of the Univ. of Wales, MANSFIELD COLLEGE, OXFORD.

UNIVERSITY COLLEGE OF WALES, ABERYSTWYTH

[Incorporated by Royal Charter dated Sept. 10, 1889; Constitution modified by special Statute Feb. 20, 1903; a constituent College of the Univ. of Wales.]

PRESIDENT OF THE COURT OF GOVERNORS AND OF THE COUNCIL	Sir JOHN WILLIAMS, Bart., M.D., G.C.V.O.
PRINCIPAL OF THE COLLEGE	T. F. ROBERTS, M.A. Ox., LL.D. Manc.
REGISTRAR	J. H. DAVIES, M.A. Ox.
LIBRARIAN	J. D. WILLIAMS, B.A.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE

JONES, C. BRYNER, M.SC. Prof.
JONES, A. E., B.SC. Asst. Lectr.

Agric. Botany [Botanist.
STAPLEDON, R. G., M.A. Advisory

Agric. Chemistry
GRIFFITH, J. J., B.SC. Lectr.
LLOYD, J. LEWIS, B.SC. Demr.

Agric. Surveying and Engin.
BASSETT, G. T., A.R.I.B.A. Instr.

Agric. and Vet. Science
WILLIAMS, D. D., M.R.A.S. ENG., F.H.A.S. Lectr.

Horticulture
PICKARD, J. LAWSON Instr.

BOTANY (v. also *Agric.*)
YAPP, R. H., M.A. CAMB. Prof.
DE FRAINE, MISS E., D.SC. LOND. Asst. Lectr.

CHEMISTRY
FINDLAY, A., M.A., D.SC. ABERD., PH.D. LEIP., F.I.C. Prof.
JAMES, T. C., M.A. CAMB., D.SC. WALES Lectr. and Demr.
BURY, C. R., B.A., OX. Asst. Lectr. and Demr.

EDUCATION [Emer. Prof.
WATSON, FOSTER, M.A., D.LITT.
VACANT Prof. and Head of Training Depts.
KIMPSTER, MISS A., SOM. COLL., OX. Lectr. and Mistress of Method.
CHAPPLE, C. R., M.A. LOND. Lectr. and Master of Method.
DALRYMPLE, MISS M., B.SC. Asst. Lectr. and Asst. Mist. of Meth.

GEOGRAPHY
FLEURE, H. J., D.SC. Lectr.

GEOLOGY
JONES, O. T., M.A. CAMB., D.SC. WALES Prof.
SMITH, STANLEY, M.SC. DURH., B.A. CAMB. Demr.

HISTORY
EDWARDS, ED., M.A. CAMB. AND LOND. Prof.
ROBERTS, T. STANLEY, M.A. CAMB. Asst. Prof.

LANGUAGES and Literature
English Lang. and Lit.
ATKINS, J. W. H., M.A. CAMB. AND LOND. Prof.

WINSTANLEY, MISS L., M.A. MANC. Asst. Lectr.

French L. & L. & Rom. Philol.

BARBIER, J. L. A., L.-ÈS-L. PARIS Prof.

THOMAS, A. B., M.A., DOC. DE L'U. LYON Asst. Lectr.

German, Hebrew, Arabic, Syriac, and Sanskrit

ETHÉ, H. Prof.

REES, MISS H., M.A. Asst. Lectr. in *German.*

Greek

MARSHALL, J. W., M.A. GLAS. AND OX. Prof.

Greek and Latin

BRIGHOUSE, T. K., M.A. LOND. Lectr.

JENKINS, E. D. T., M.A. OX. Asst. Lectr.

BIBBY, E. E., B.A. CAMB. ,,

Latin

BENSLY, E., M.A. CAMB. Prof.

Welsh and Comp. Philol.

ANWYL, SIR EDW., M.A. OX. Prof.

LEWIS, TIMOTHY, B.A. WALES, M.A. MANC. Asst. Lectr.

Welsh Literature

JONES, T. GWYNN. Special Lectr.

LAW, English

LEVI, T. A., M.A., B.C.L. OX., BAR.-AT-LAW Prof.

LEWIS, MALCOLM M., B.A., LL.B. CAMB, Asst. Lectr.

LOGIC and Philosophy

JONES, W. JENKYN, M.A. CAMB., B.A. LOND. Prof.

MATHEMATICS, Pure

GENESE, R. W., M.A. CAMB. Prof.

JOHNSTON, W. J., M.A. BELF., B.A. DUB. Lectr.

Mathematics, Applied

SCHOTT, G. A., B.A. CAMB., D.SC. LOND. Prof.

MUSIC

JENKINS, D., MUS.BAC. CAMB. Prof.

PHILOLOGY, v. *Langs.*

PHILOSOPHY, v. *Logic*

PHYSICS

LEWIS, D. MORGAN, M.A. CAMB. [Prof.

PAINE, H. H., M.A. CAMB., B.SC. WALES Lectr. and Demr.

POLITICAL SCIENCE

LEWIS, E. A., M.A., D.LITT. WALES, D.SC. LOND. Prof.

ZOOLOGY

FLEURE, H. J., D.SC. Prof.

CHANGES IN STAFF

Batt, F. R., Asst. Lectr. in Law, resigned on appointment to Lectureship in Sheff.

Brebner, Miss, M.A., Lectr. in German, resigned.

Brooke, A., Ph.D. Strass., Lectr. in Chemistry, resigned.

James, Mrs. T. C., B.Sc., Lectr. in Botany, resigned.

Rees, Miss Hermia, appointed *vice* Brebner.

Stapledon, R. G., M.A., late of the Agric. Coll., Cirencester, appointed Advisory Botanist.

GENERAL INFORMATION

A special feature of the College is its ample provision for instruction and research in Agriculture and allied subjects. Geography and Colonial History receive special attention.

Departments. General Arts and Science, Law, Agricultural and Technical, Training of Teachers (Elementary and Secondary). Music is included in General Arts and Science.

Admission. The minimum age is 16.

Terms, 1913–14. Michaelmas begins Sept. 16; Lent, Jan. 13; Easter, April 14.

College Diplomas. (1) Associateship of the College; (2) Associateship in Agric. of the Coll.; (3) Diploma in Dairying. *Certificates* are granted in Geography and in connexion with short courses in Agric. and Dairying.

Courses of Study. The courses in Arts, Science, Law, and Music are adapted to the requirements of the Degree examns. of the Univ. of Wales, but are to a large extent serviceable for those of the Univ. of London. The Intermediate courses in Science are adapted to the requirements of the first *annus medicus*; courses in Chem. and Bot. to those of the examns. of the Pharm. Soc.

The Diploma (1) is conferred on students who attend the Coll. classes for 2 yrs. and graduate at any Univ. in the U.K. The course for Diploma (2) extends over 3 yrs., but students are required to attend lectures during the Michs. and Lent terms only, the Easter term and Summer being devoted to practical work (24 weeks in each of the first 2 yrs.) on a farm, unless this has already been done.

The course for Diploma (3) covers 2 sessions, the Michs. and Lent terms being devoted to lectures and laboratory work, and the Easter term to practical work in the Coll. dairy.

The course of Training of Teachers for Secondary Schools extends over 3 terms and is open to students who have qualified for graduation; it includes the subjects for the Certif. in Educn. of the Univ. of Wales. The course for Elem. School Teachers covers 4 yrs.

An *advanced course* in Agric. Chem. is open to grads. Post-grad. instruction is also provided in Engl., French, German, and Oriental Langs., Hist., Welsh, Pol. Science, Chem., Geol., Bot., and Zool. An Agric. Botanist devotes the whole of his time to *research work*. The soil survey of Mid Wales is carried on under the direction of the Prof. of Geol. Fishery problems are investigated under the direction of the Prof. of Zool.

Affiliation, &c. The Coll. is affiliated to Oxford and Cambridge and is recognized by Edin. and N.U.I., by the R.C.P. and S. Eng. and Edin., the Faculty of P. and S. Glas., and the R.C.P.I., by the Inst. of Chem. and the Surveyors' Institn.

Scholarships for Graduates. Keeling Research, £40 for 1 yr.; one of the 1851 Exhibition Science Research Scholarships (£150 for 2 yrs.) has been allotted to this Coll. to be awarded in 1914.

An Appointments Committee has been formed.

Residential Facilities. Alexandra Hall for women students has accommodation for 208. All women students must reside therein or with parents or guardians. The Hostel for men students has accommodation for 40. Men students must reside therein or in their own homes or registered lodgings.

The Library contains about 30,000 vols.

Museums and Laboratories. The Edward Davies Chem. Labs., erected in 1907, are excellently equipped for teaching and research; accommodation has been provided for practical instruction in Dairying, and there is an experimental station for Research and Demonstration in Agric. The Coll. and Counties Demonstration and Experimental Farm comprises 200 acres.

University Extension. Lectures for local centres are provided in Agric., Vet. Hygiene, Dairying, Poultry, Horticulture and Bee-keeping, Cookery, Sick Nursing and Laundry; Travelling Dairy School courses in Dairying; short courses in Agric., Dairying, and Horticulture. Tutorial classes in Econ., Hist., and Welsh are conducted in the Coll. area. A Summer School is organized at the Coll. during Aug. in each year.

Publications. The *Calendar*, issued about Jan., price 1s. 6d., contains, in addition to the usual information, annual reports and financial statements and scholarship examn. papers; "Aberystwyth Studies," by members of the Coll., Vol. I, 1912, pubd. at the Coll., 3s. 6d.

THE YEAR 1912–13

Benefactions. Bequests—£5000 (Lord Rendel's); £500 (Mrs. Evans'); £500 (Mrs. Thos. Jones', to found a scholarship in Surgery).

Special Events. Inaugural address by Hon. Whitelaw Reid, Ambassador of the U.S.A.

New Departments and Posts. Owing to the receipt of a grant from the Development Fund considerable progress has been made with the scheme for advisory work in Agric. An Advisory Botanist and a Demonstrator in Geol. have been appointed.

University Extension. Work was carried on in a large number of local centres, and classes under the Univ. Tutorial scheme were conducted in Econ., Hist., and Welsh in Aberystwyth and at centres in the County of Merioneth.

Number of Students. Full-time students preparing for the Bachelorship or Diploma examns., 420 (including 168 women); occasional students, 8 (3 women); preparing for Master's or Doctor's degree, 17 (2 women); grad. students taking the Secondary Training

course, 8 (2 women); total in Coll., 453. Continuing research in Europe or America (in 1912), 6 in Berlin, 1 in Freiburg, 3 in Paris, others in Camb. and Lond.

Additions to Buildings. Coll. Library capacity has been increased by 1800 ft. shelf space. New Agric. laboratories have been fitted up for Agric. Botany.

Other New Developments. A Hostel for men students having accommodation for 40 has been opened. The provision of further accommodation is in contemplation.

UNIVERSITY COLLEGE OF NORTH WALES, BANGOR

[Constituted by Royal Charter dated June 4, 1884. Made a constituent Coll. of the Univ. of Wales in 1893.]

President of the Court of Governors and Chairman of the Council	Rt. Hon. Lord Kenyon, K.C.V.O.
Principal	Sir Harry Reichel, M.A. Ox., LL.D. Glas.
Secretary and Registrar	Prof. J. E. Lloyd, M.A.
Warden of the Women Students	Miss E. Steel, M.A.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE

WHITE, R. G., M.SC. Prof.
JONES, W. HOPKINS Asst. Lectr.
JONES, GRIFFITH, B.SC. ,,

Agric. Botany

WILLIAMS, J. LLOYD, D.SC. Adviser.

Agric. Chem. [Adviser.

ROBINSON, G. W., B.A. CAMB.
JONES, H. E., B.A., B.SC. OX. Asst. Lectr.

BOTANY (v. also *Agric.*)

PHILLIPS, R. W., M.A., D.SC., F.L.S. CAMB. Prof.
BAKER, MISS L., M.SC. Asst. Lectr.

CHEMISTRY

ORTON, K. J. P., M.A., PH.D., F.I.C. CAMB. Prof.
SMITH, ALICE E., D.SC. Asst. Lectr. and Demr.
HUGHES, J. O., B.SC. ,,

ECONOMICS

RICHARDS, R., B.A. CAMB. Tutorial Classes Lectr.

EDUCATION

ARCHER, R. L., M.A. OX. Prof.
PATERSON, MISS A., M.A. EDIN., PH.D. JENA Asst. Lectr.

WORTLEY, H. A. S., B.A. CAMB. Asst. Lectr.

FORESTRY

STORY, F., F.R.S.E. Prof.
THOMSON, T., B.SC. Asst. Lectr.

HISTORY

LLOYD, J. E., M.A. OX. Prof.
OWEN, L. V. D., B.A. OX. Asst. Lectr.

Constitutional Hist.

THE PRINCIPAL Prof.

LANGUAGES and Lit.

Engl. Lang. and Lit.

JONES, W. LEWIS, M.A. CAMB. Prof.
CLARKE, F. W., M.A. Asst. Lectr.

French and Rom. Philol. [Prof.

FYNES-CLINTON, O. H., M.A. OX.
MOSSÉ, F. Scholar Asst.

German and Teut. Philol. [Prof.

MILNER-BARRY, E. L., M.A. CAMB.

Greek

HUDSON-WILLIAMS, T., M.A., D.LITT. LOND. Prof.

Greek and Latin

DAVIES, M. H., M.A. Asst. Lectr.

Latin

ARNOLD, E. V., LITT.D. CAMB. Prof.
PORTER, W. H., M.A. T.C.D. Asst. Lectr.

Semitic Langs.

DAVIES, T. WITTON, B.A. LOND., PH.D. LEIP., D.D. GEN. Prof.

Welsh

JONES, J. MORRIS, M.A. OX. Prof.
WILLIAMS, IVOR, M.A. Asst. Lectr.

LOGIC and Philosophy

GIBSON, J., M.A. CAMB. Prof.
CHAPMAN, A. E., B.A. CAMB. Asst. Lectr.

MATHEMATICS [Prof.

BRYAN, G. H., SC.D. CAMB., F.R.S.
BERWICK, W. E. H., M.A. CAMB. Asst. Lectr.
MATHEWS, G. B., M.A. CAMB., F.R.S. Special Lectr.

MUSIC

EVANS, H., F.R.C.O. Director.

PHILOSOPHY, v. *Logic*

PHYSICS [Prof.

JONES, E. TAYLOR, D.SC. LOND.
FERGUSON, A. H., B.SC. LOND. Asst. Lectr. and Demr.
WILLIAMS, W. E., B.SC. ,,

VETERINARY HYGIENE

SAVAGE, W. H., M.R.C.V.S. Instr.

ZOOLOGY [Prof.

WHITE, P. J., M.B. EDIN., F.R.S.E.

CHANGES IN STAFF

Baker, L., apptd. *vice* Harper.
Clarke, F., apptd. *vice* O. T. Williams.
Evans, G., M.D., Instr. in Vet. Hyg., vacated the apptmt.
Evans, H., apptd. *vice* L. Williams.
Harper, A. G., Asst. Lectr. in Bot., vacated the apptmt.
Savage, W. H., apptd. *vice* G. Evans.
White, R. G., apptd. *vice* Winter.
Williams, Lloyd, Dir. of Music, vacated the apptmt.
Williams, O. T., Asst. Lectr. in Engl., vacated the apptmt.
Winter, T., M.A., Prof. of Agric., deceased.

GENERAL INFORMATION

Among the objects of the Coll. as defined in the Charter are "to give such technical or other instruction as may be of immediate service in professional life; and further to promote higher education generally

by providing for persons who are not matriculated students instruction in the form of lectures, combined with class teaching and examining. . . ." There are the following *departments* in addition to the Faculties of Arts and Science: Elem. Training, Secondary Training, Kindergarten Training, Agriculture, Forestry, and Elec. Engin.

ADMISSION. The minimum age for men and women students is 16.

TERMS 1913–14. Autumn term begins Sept. 30, ends Dec. 20; Spring begins Jan. 13, 1914, ends March 28; Summer begins April 16, ends June 30.

COLLEGE DIPLOMAS in Agric. and in Forestry and Certificates in Dairy Work are granted. Certifs. of merit are granted annually in each class except the Honours classes.

COURSES OF STUDY. The classes are arranged with reference to the Degrees in Arts and Science of the Univ. of Wales. The courses are recognized by the Univ. of Oxford.

MEDICINE. The Phys., Chem., Pract. Chem., Bot., and Zool. classes in Pure Science are recognized as forming a 1st yr. of Med. study by Edin. and Glas., the R.C.S. and P. Eng. and Edin., the Faculty of P. and S. Glas., and the R.C.P.I. In each case a Prelim. examn. is required. The classes are also suitable for candidates for the first examn. for Med. degrees of the Univ. of London.

AGRICULTURE. Courses are provided leading to the B.Sc. degree of the Univ. of Wales in the group "Agric. and Rural Econ." They also afford complete instruction to non-graduating students who remain at the Coll. for 2 whole sessions—the period of study requisite for obtaining the Diploma. Students who, after passing the Prelim. examn. of the *Surveyors' Institution*, pursue the 2 yrs. in-College course may sit for the Student's Proficiency examn. of the Institn. as if they had served a complete term of pupilage in a land agent's office, and on passing may be enrolled as Professional Associates. An *advanced course* in Agric. Chem. may be taken in the 3rd yr. and an additional Diploma obtained. Special *short* (10 weeks) courses are held in autumn and spring terms. The *Dairy Work* Certificates are granted in connexion with the out-College Agric. Instruction scheme which is being operated over the greater part of N. Wales with the aid of County Council grants amounting to £1100 p.a. Attendance for 1, 2, or 3 mos. at the Dairy School at Lleweni Hall, near Denbigh, is required to obtain the Certifs. in Butter-making, Cheese-making, and General Dairy Work respectively. The *Forestry* Certif. course covers 1 session.

ELECTRICAL ENGINEERING. A 2 yrs. course is provided, but no certif. is granted except the annual class certifs. of merit.

TRAINING OF TEACHERS. The Coll. is recognized by the Board of Educn. as a Training Coll. for Teachers in Elem. Schools. Students

over 18 yrs. of age are admitted to the Elem. Training Dept. for 4 yrs. During the first three they study for the B.A. or B.Sc. degree of the Univ. of Wales and during the 4th take a course of professional training. Those who have already completed 1 or 2 yrs. of a Degree course in a Coll. within the Univ. of Wales may be admitted for the remainder of the Degree course and the 4th yr. Grads. over 20 yrs. of age are admitted for the 4th yr. only. The course for teachers for *Secondary* Schools covers the requirements of the examns. of the Univs. of Wales and Camb. It is open to students who have passed degree or equivalent examns. or hold special Honours Certifs. of the Ox. and Camb. Higher Local examns. Students are also prepared for the examns. of the Nat. Froebel Union for *Kindergarten* teachers. The course for the Elem. Certif. covers 1 session, that for the Higher 2 sessions and 1 term, reducible in the case of students who already possess certain qualifications.

Research and Advice. There are facilities for Research in all the Science Depts. In the Zool. Dept. there are facilities for Research in connexion with fisheries. Although the Puffin Island Marine Biol. Station has been abandoned and not yet replaced by another, the collection of fishes, shellfish, and fishing gear made in connexion with it remains and grows, and the Dept. has by its investigations been the means of saving an ancient industry (Conway mussel fishery) from extinction. The two *Advisers* in Agriculture investigate special problems, and give scientific advice to farmers and others. The apptmts. were made possible by a special grant from the Development Fund. Annual detailed reports of field experiments planned by the Coll. Lectrs. and carried out under their supervision in various parts of N. Wales are published and can be obtained post free on application. Experiments are also conducted on the Coll. Farm at Aber, where a special feature is made of Stock-breeding. The Prof. of Forestry may be consulted by owners of woods and is prepared to direct the management of woodlands and draw out working plans.

Scholarships open to Grads. One or two Osborne Morgan studentships, £43 10s. for 1 or 2 yrs. for students proposing advanced or post-grad. courses; one or two Isaac Roberts scholarships of £50.

Women are admitted to attend any of the courses.

Residential Facilities. A Univ. Hall for 70 women students has been opened. There is also a Hostel for men students. There is a register of approved lodging-houses. Women students under 21 yrs. of age must reside in the Hall or in a house where hostel conditions of supervision are secured. Other students not residing with parents or guardians must reside in the Hall or an approved lodging-house or institn. The Bala-Bangor Independent Coll., Diocesan School of Div., Normal Coll., N. Wales Baptist Coll., and N. Wales Training Coll. are approved for this purpose. There is a Standing Committee of Council for registration and regulations of students' lodgings. The Charter provides that no student shall reside within the Coll. buildings.

The LIBRARY contains 40,000 vols., and there is, in addition, a Welsh Library containing about 15,000 vols. It is hoped to make the latter a complete collection of printed matter relating to Wales and the Borders.

MUSEUMS AND LABORATORIES. Reference has been made under "Research" to the Fisheries Collection. There are the usual teaching museums and labs. for the scientific subjects taught. There is a special collection of objects illustrating the bygone domestic and agricultural life of Wales. The Coll. *Farm* is at Aber, 5 miles from Bangor. It covers 675 acres, of which two-thirds is an upland sheep walk. There is a Dairy School at Lleweni Hall, near Denbigh, under the management of the Coll.

UNIVERSITY EXTENSION. (*See under* "Agriculture.") The detailed expenditure of the County Council grants is entrusted to a County Sub-Committee. Short courses of Local Lectures on Agric. subjects are provided for, and small lending libraries organized in connexion therewith. "George Rae" courses of Free Evening Lectures are annually delivered at Bangor or elsewhere in N. Wales on some aspect of Pol. Econ. with special reference to Banking and Finance. The Coll. conducts at Blaenau Festiniog, Penygroes, Bethesda, and Llanberis weekly Tutorial Classes for workers, chiefly slate quarrymen. The classes are carried on with the aid of grants from the Board of Educn. and N. Wales Quarrymen's Union, and in association with the Central Joint Advisory Committee on Tutorial Classes.

PUBLICATIONS. The *Calendar*, issued about Sept., price 1s. 6d. *Academical Addresses* delivered at the Coll.: 1884, Inaug. Address, the Rt. Hon. Earl of Powis. 1885, Sir Wm. Thomson (Lord Kelvin), at the opening of the Phys. and Chem. Labs.; and Prof. Michael Foster, at the opening of the Biol. Lab. 1890, Prof. J. P. Mahaffy, "Modern Aspects of Univ. Educn." 1891, Prof. S. H. Butcher, "The Unity of Learning." 1895, Prof. Henry Jones, "The Higher Learning in its bearing upon National Life in Wales." 1896, Prof. Wm. Ramsay, "Educn. in Science in Britain and in Germany." 1897, Prof. T. Palgrave, "The Genealogy of a Univ. for 800 yrs." 1898, Dr. Alex. Hill, "Old Ways and New in Educn." 1899, Prof. W. Boyd Dawkins, "The Place of a Univ. in the Hist. of Wales." 1902, Prof. F. York Powell, "The Study of Hist. in Univs." 1903, Prof. Sir Richard Jebb, "Some Aspects of Mod. Univ. Educn." 1904, Sir Arthur W. Rücker, "Univ. Organization in Gt. Brit." 1906, Prof. Rev. A. H. Sayce, "Educn. in the Ancient East." 1909, Sir Thos. Raleigh, "The Univs. of Brit. India." 1912, Prof. W. P. Ker, "The Humanities." The *College Magazine*, managed by a Joint Committee of Staff and students, appears once a term and is sold at 6d. a copy. The Students' Representative Council publish at the beginning of each session a *Students' Handbook*, price 1s.

THE YEAR 1912-13

NUMBER OF STUDENTS. 332 (including 108 women).

NUMBER OF DEGREES OBTAINED. B.A., 44 (including 13 women); B.Sc., 14 (2 women); M.A., 7 (1 woman); M.Sc., 1; Agric. Diplomas, 2.

NEW DEVELOPMENT. Men's Hostel established.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE, CARDIFF

[Incorporated by Royal Charter in 1884; a constituent College of the Univ. of Wales.]

PRESIDENT	The Rt. Hon. LORD MERTHYR OF SENGHENYDD, G.C.V.O.
TREASURER	Councillor H. M. THOMPSON, M.A. Llandaff.
PRINCIPAL	E. H. GRIFFITHS, M.A., Sc.D. Camb. and Wales, Hon. LL.D. Aberd., D.Sc. Manc., F.R.S.
REGISTRAR	D. J. A. BROWN.
PRINCIPAL OF ABERDARE HALL FOR WOMEN STUDENTS	Miss KATE HURLBATT.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE and Dairying (Short Courses) [Teacher.

CARRUTHERS, K. ST. C., B.A. CAMB.
HARTLEY, W. J., B.A. CAMB. Teacher.
EDWARDS, ELLA, N.D.D. ,,
STEWART, A. C., M.R.C.V.S. ,,
THOMAS, S., B.SC. WALES ,,

ANATOMY

HEPBURN, D., V.D., M.D., C.M. EDIN., F.R.S.E. Prof.
DAVIES, D. L., M.D., M.S. LOND., F.R.C.S. ENG. Asst. Lectr. and Demr.
WADE, J. O. D., M.B., M.S. LOND., F.R.C.S. ENG. Demr.

BOTANY [Prof.

TROW, A. H., D.SC. LOND., F.L.S.
HAWORTH, W. O., B.SC. MANC. Asst. Lectr. and Demr.

CHEMISTRY (v. also *Hyg. and Physiol.*)

THOMPSON, C. M., M.A. CAMB., D.SC. LOND., F.C.S. Prof.
PERMAN, E. P., D.SC. LOND., F.C.S. Asst. Prof.
ABELL, R. D., D.SC. WALES, PH.D. LEIP., F.I.C., F.C.S. Asst. Lectr. and Demr.

ECONOMICS and Pol. Science
ROBERTS, W. J., M.A. OX. Fulton Prof.

EDUCATION
PHILLIPS, W., M.A. Prof.
MACKENZIE, H. MILLICENT, M.A. ,,
Training Depts. for Men
WATKINS, W. F., M.A. CAMB. Asst. Lectr.
Training Depts. for Women
GAVIN, HILDA Asst. Lectr.
GIBSON, MARY H., M.A. DURH., PH.D. JENA Asst. Lectr.
FOXLEY, BARBARA, M.A. ,,

ENGINEERING (v. also *Mining*)
BACON, F., M.A., A.M.I.E.E. Prof.
THOMAS, S., B.SC. Lectr.
ELLIOTT, J. J., B.SC. LOND. Asst. Lectr. and Demr.

GEOLOGY [Prof.
SIBLY, T. F., D.SC. LOND., F.G.S.
EDWARDS, E. J., M.SC. MANC. AND LEEDS Asst. Lectr. & Demr.

HISTOLOGY and Embryology
BURLEND, T. H., M.A. CAMB., B.SC. LOND. Lectr.

HISTORY
BRUCE, H., M.A. OX. Prof.
HUGHES, E. E., B.A., M.A. OX. Asst. Lectr.

HYGIENE, Public Health and
WALFORD, E., M.D. DURH., D.P.H. CAMB. Lectr.
MORGAN, D. J., M.A., M.D. CAMB., D.P.H. LOND. Lectr.
Hygienic Chemistry [Lectr.
SUGDEN, J. H., M.SC. VICT., F.I.C.

LANGUAGES and Literature
Celtic
POWEL, T., M.A. OX. Prof.
GRUFFYDD, W. J., M.A. OX. Asst. Lectr.
Eng. Lang. and Lit.
LITTLEDALE, H., M.A., D.LITT. DUB. Prof.
BRETT, C., B.A. OX. Asst. Lectr.
French Lang. and Lit.
BARBIER, P. Prof.
DE PUYBUSQUE, P. N.; L.-ÈS-L., L.-EN-DROIT Asst. Lectr.
German Lang. and Lit.
ARNOLD, F. T., M.A. CAMB. Lectr.
Greek
NORWOOD, G., M.A. CAMB. Prof.
BROOKS, G. D., B.A. OX. AND WALES Asst. Lectr.
Latin
SLATER, D. A., M.A. OX. Prof.
ARNOLD, F. T., M.A. CAMB. Asst. Lectr.
THOMPSON, F. C., B.A. CAMB. ,,
Semitic Languages [Lectr.
EVANS, D. T., M.A., B.SC. LOND.

LAW
JACOBS, B., LL.B. LOND. Lectr.
Book-keeping and Trust Accts.
HOWELL, H. G., A.C.A. Teacher.

MATHEMATICS, Pure and Applied
PINKERTON, R. H., B.A. OX., M.A. GLAS. Prof.
TAYLOR, D. G., M.A. CAMB., M.A. GLAS. Lectr. in *Pure Maths.*
SMITH, J. G., M.A. DUB. Asst. Lectr.

MEDICINE, v. *Path.* and *Pharm.*

METALLURGY
READ, A. A., M.MET. SHEFF., F.I.C., F.C.S. Prof.
GREAVES, R. H., M.SC. WALES, B.SC. LOND. Asst. Lectr. and Demr.

MINING [Lectr.
PRICE, S. W., ASSOC.R.S.M., F.G.S.
GALLOWAY, C. F. J., B.SC. WALES Asst. Lectr. and Demr.

MUSIC
EVANS, D., MUS.BAC. OX. Prof.

PATHOLOGY and Bacteriology
EMRYS-ROBERTS, E., M.D. LIV.; M.B., CH.B. MANC. (Instr. in *Vaccin.*) Prof.

PHARMACOLOGY, Therapeutics, and Materia Med.

STEVENS, W. M., M.D. OND., M.R.C.P., M.R.C.S. Lectr.

PHILOSOPHY, Logic and

MACKENZIE, J. S., LITT.D. CAMB., LL.D. GLAS. Prof.

STRANGE, E. H., M.A. LEEDS, B.A. CAMB. Asst. Lectr.

PHILOSOPHY, Experimental

THE PRINCIPAL Prof.

PHYSICS

SELBY, A. L., M.A. OX. Prof.

SHAXBY, J. H., B.SC. LOND. Asst. Lectr. and Demr.

FLINT, H. T., M.SC. BIRM. ,,

PHYSIOLOGY (v. also *Histol.*)

HAYCRAFT, J. B., M.D., D.SC. EDIN., F.R.S.E. Prof.

Physiol. Chemistry

RENALL, M. H., B.SC. LOND. Lectr.

ZOOLOGY

PARKER, W. N., PH.D. FREI., F.Z.S. [Prof.

LATARCHE, MARGARET, M.SC. LIV. Asst. Lectr. and Demr.

CHANGES IN STAFF

Boulton, W. C., Prof. of Geol.; resigned on apptmt. as Prof. at Birm.

Brown, D. J. A., apptd. Registrar *vice* Watkins.

Elliott, A. C., Prof. of Engin., deceased.

Elliott, J. J., B.Sc., formerly of the Pulsometer Engin. Co., apptd. *vice* Trill.

Haig, J. A., M.B., B.S. Lond., Lectr. in Histol. and Embryol., resigned.

Hartley, W. J., B.A. Camb., formerly of R.C.Sc.I., apptd. Teacher of Agric. Chem. and Dairy Bacteriology.

McBride, T. L., B.Sc., formerly Manager of Ibstock Collieries, apptd. 2nd Asst. Lectr. and Demr. in Mining.

Orr, M. Y., Asst. Lectr. and Demr. in Botany, resigned.

Thomas, D. E., M.A., B.Sc., 2nd Asst. Lectr. and Demr. in Phys., resigned.

Trill, J. Cooper, B.Sc., 2nd Asst. Lectr. and Demr. in Engin., resigned.

Watkins, P. E., Registrar, apptd. Asst. Secy. to Nat. Health Ins. Commrs. for Wales.

GENERAL INFORMATION

ADMISSION. The minimum age at entrance is 16. All the classes are open to both men and women students. Women students not residing with their parents or legal guardians are required to reside at Aberdare Hall.

TERMS. Michs. Term begins Oct. 7; Lent, Jan. 6; Summer, April 15.

DIPLOMAS are granted by the Coll. in Engin., Mining (other than Coal-mining), Metall.; Music; Lang., Lit., and Hist. of Wales;

Economics and Allied Subjects. A Joint Diploma in Coal-mining is granted by the Coll. and the Mining Board (S. Wales and Monmouthshire coalfield). A Diploma of Assoc'ship is given to matriculated students who, having attended the Coll. classes for not less than 2 sessions, have graduated at any of the Univs. of the U.K. or have such other qualifications as may from time to time be prescribed.

Courses (in addition to courses for Coll. Diplomas and for Degrees in Arts and Science of the Univ. of Wales):

Agriculture and Dairying. Short courses (not intended as preparation for any examns.) are given (1) in Agric.—6 weeks, (2) supplementary to (1)—4 weeks, (3) in Dairying (for farmers' wives and daughters)—6 weeks, under the supervision of the Glamorgan County Council Agric. Organizer and Lectr., who also acts as Hon. Adviser for Agric. Instruction to the Coll. The *Law* courses are intended for students preparing for the Interm. and Final examns. of the Law Soc., established under an arrangement between the Coll. and the Joint Board of Legal Education for Wales. They extend over 2 yrs.

The *Medical* courses (3 yrs.) are recognized as qualifying for the examns. of the Univs., Royal Colls., and other licensing bodies of Gr. Brit. and Ireland, and are specially adapted to meet the needs of students for Wales, Camb., and Lond. degrees. Having passed 3 yrs. in study at Cardiff and the examns. pertaining thereto, a student may proceed to London or elsewhere to complete his course. The courses in Pub. Health and Hygiene are recognized by the Univs. of Lond., Camb., Wales, Dub., and Manc., and by the Royal Colls. The Med. School of St. Bart's, London, will make an equivalent deduction in fees for students who have attended the class. Arrangements with the Board of Management of the K. Edward VII's Hospl. give students of the Coll. the privilege of attending this large and well-ordered Hospl., which is situated within 5 minutes walk of the Coll., for *clinical* instruction, and students taking the course for the Diploma in Pub. Health are enabled to attend the Cardiff Hospl. for Infectious Diseases.

Scholarships, &c., for Advanced Students. Isaac Roberts Science Research Scholarship, £50 for 1 yr., tenable in this Coll., open to grads. of a Univ. in the U.K.

The Library (the Drapers' Company's) contains about 36,000 vols. Nearly 200 serials are taken in, chiefly scientific.

Museums and Laboratories. Special features—a liquid air plant in the Phys. Research Lab.; a 100-ton testing machine in the Engin. Lab. (the property of the Cardiff Tech. Committee).

University Extension. Lectures and "Pioneer" Lectures are given in several places. The subjects include Hist., Lit., Art, Social and Nat. Sciences, Philos., Music.

Publications. The *Calendar*, issued in Feb., price 2s.; *Cap and Gown*, subs. for the session, 1s. 3d.

THE YEAR 1912–13

Benefactions Received. For Genl. Purposes Fund, £2247; for Engin. Dept., £350; for Building Fund, £715; for Med. School, £3; for scholarships and prizes—in Science, £100, in Music, £100, other, £418; for Phys. Research, £364; for courses in Law, £152; total, £4454.

Number of Students, 1911–12. Full-time students preparing for the Bachelorship and Diploma examns., 555 (including 153 women); part-time day students—Degree, 5; Diploma, 49; other, 68 (13 women); Masters and Doctors and other Research students (not being teachers) engaged in Research, 5 (1 woman); total, 682.

Number of Degrees Obtained, 1912–13. B.A., 72 (including 25 women); M.A., 5; B.Sc., 23 (6 women).

Additions to Equipment. A liquid air plant has been installed in the Phys. Research Lab.

WESTERN UNIVERSITY OF LONDON, ONTARIO

[Established—as now constituted—by Act of the Ontario Provincial Legislature, 1908.]

CHAIRMAN OF THE BOARD OF GOVERNORS AND CHANCELLOR	Chief Justice R. M. MEREDITH.
PRESIDENT OF THE UNIVERSITY	N. C. JAMES, M.A., Ph.D. Halle.
REGISTRAR AND LIBRARIAN OF THE FACULTY OF ARTS	W. F. TAMBLYN, B.A., Ph.D. Col.
REGISTRAR OF THE MEDICAL FACULTY	W. E. WAUGH, M.D.
DEAN OF THE MEDICAL FACULTY	F. R. ECCLES, M.D.

PROFESSORS, LECTURERS, ETC.

ANATOMY, v. *Medicine*

BOTANY and Zoology
DEARNESS, J., M.A. Lectr.

CHEMISTRY
SLACK, A. J., PH.C. Lectr.

CLASSICS [Lectr.
NEVILLE, K. P. R., M.A., PH.D. CORN.

ENGLISH Lit. and Hist. [Prof.
TAMBLYN, W. F., B.A., PH.D. COL.

GEOLOGY
WOOLVERTON, S. Lectr.

HEBREW [Prof.
WALLER, C. C., M.A. CAMB., D.D.

LANGUAGES, Modern
THE PRESIDENT Prof.

MATHEMATICS
PATTERSON, W. J., M.A. QU. Prof.

*MEDICINE and Surgery**

Anatomy
BROWN, C. E., M.D. (L, I) in *Anat.*, (I) in *Clin. Med.*
HALE, G. C., M.D., C.M. MC G. (L, I) in *Anat.* and *Surg. Anat.*
SCHAEF, J. H., M.D. (L, I).
MC KIBBEN, P. F., M.D. (L, I, whole-time).

Bacteriology, General
FIDLAR, E., B.A., M.B. TOR. (L, I) ; also (L, I) in *Path.*

Eye, Ear, Nose, and Throat
CLARKE, G. L., M.D. (L, I).
THOMPSON, SEPTIMUS, M.D. (L, I).

* In the Med. Faculty there are 6 full-time Profs., including 3 connected with the Inst. of Pub. Health ; the other teachers devote only part of their time to teaching and are for the most part men engaged in the practice of their profession.

(L) Lecturer in the Med. Faculty. (I) Instructor in the Med. Faculty. Members of the staff are known as Instructors if employed in practical work, and as Lecturers if in didactic.

Gynæcology

BURDON, F. L., M.D., L.R.C.P., L.R.C.S., L.F.P. AND S. (L).
FERGUSON, R., B.A., M.D. (L).
MEEK, H., M.D. *(L).
SHOEBOTHAM, W. M., M.D. (L).
STEVENSON, W. J., M.D., C.M., F.R.M.S. ENG., F.B.G.S. ENG. (L).

Materia Medica [also (L) in *Obst.*

BLACK, H. H., PHM.B., M.D. (L, I).
JEPSON, G. L., M.D. (L, I).

Medical Jurispr. and Toxicol.

WEEKES, W. J., M.D. (L, I)

Medicine (L) *and Clin. Med.* (I)

CAMPBELL, J. B., M.D. (L)
CHILDS, J. R. N., M.D. (I).
DRAKE, F. P., M.D., C.M. (L).
GRAHAM, A., M.D. (L).
HUGHES, F. W., M.D. (I).
MC CALLUM, H. A., M.D., M.R.C.P. LOND. *(L, I).
MACGREGOR, J. A., M.D. (L, I).
ROSS, W. H., M.B. TOR. (I).
STEAD, J. H., M.A., M.D., C.M. QU. (I).
SPENCE, E., M.D. (I) ; also (L, I) in *Path.*

Obstetrics (v. also *Mat. Med.*)

SCHRAM, J. S., M.D. (L).

Pathology (v. also *Bact., Med.*)

DIRECTOR INST. PUB. HEALTH *.

Pediatrics

LINDSAY, J., M.B. TOR. (L, I).
TILLMANN, J. W., M.D. (L, I).

Pharmacol. and Therap.

ALEXANDER, N. B., M.D. (L, I).
CRANE, J. W., M.B. TOR. (L, I, whole-time).

Psychiatry

ROBINSON, W. J., M.B. TOR. (L, I).

Public Health

HILL, H. W., M.B., M.D., D.P.H. TOR. (Dir. of Inst. of P.H.) (L, I).
THE (L, I) IN *Chem.* AND *Bact.* (L, I).

Surgery (L) *and Clin. Surg.* (I)

BEAL, N. H., M.D. (I) ; also (L, I) in *Surg. Anat.*
HODGINS, E. L., M.B. TOR., F.R.C.S. (L, I).
HOGG, D. H., M.D., C.M. (L, I).
MC NEILL, G., M.D. (L) ; also (L, I) in *X-Ray.*
MUGAN, J. P., M.B. TOR. (L).
SEABORN, E., M.D. (L, I).
WILLIAMS, H., M.D., F.R.C.S. ENG. *(L, I).

Surg. Anat. (v. also *Anat.* and *Surg.*)

WILSON, J. C., M.D. (L, I).

PSYCHOLOGY and Ethics

SAGE, G. B., B.A., D.D. Lectr.

SANITARY SCIENCE, v. *Med.—Pub. Health.*

GENERAL INFORMATION

FACULTIES, &c. There are Faculties of Arts, Medicine, and Music ; a College of Public Health and Preventive Medicine ; a School of Theology (Huron College).

MATRICULATION. There is an admission examn. for students who have not passed the Provincial Departmental Junr. Matricn. examn. or its equivalent (*see also under* "Medicine").

TERMS, 1913–14. Lectures in Arts begin Oct. 1, are resumed on Jan. 12, and close on April 9. Corresponding dates for Medicine are Sept. 16, Jan. 6, and April 24.

* Chief of Department.
(L) Lecturer in the Med. Faculty. (I) Instructor in the Med. Faculty. Members of the staff are known as Instructors if employed in practical work, and as Lecturers if in didactic.

DEGREES, &c. B.A., M.A.; M.D.; B.Mus., Mus.D., Assoc. and Lic. in Music, Music Teacher's Diploma.

ARTS. A 4 yrs. course, either General or Honour, leads to the B.A. degree. Candidates may be allowed by the Senate to undergo examn. without attendance upon classes. Such extra-mural candidates pay a special fee of $10 annually. Examns. at local centres may be arranged for at the expense of candidates. The Honour subjects are: Classics, Mod. Langs., Engl. and Hist., Maths. There are special courses for Med. and Theol. students. The M.A. degree may be conferred on a B.A. (of this or some other recognized Univ.) of at least 1 yr.'s standing who has obtained Honours in 2 courses or submitted a thesis.

THEOLOGY. Particulars regarding Huron Coll. are given under "Affiliated Institns."

MEDICINE. The qualifications for *matriculation* in this Faculty are (1) matricn. or graduation in any recognized Brit. Univ.; or (2) the Joint Matricn. examn. of the Ontario Education Department (which is the only matricn. recognized by the Ont. Med. Council); or (3) qualification, with Latin, for a provincial normal school or Faculty of Educn. in Ont. Requirements for the M.D. degree include (1) Matricn. examn. recognized by the Univ. or its equivalent; (2) 5 years Med. study, including attendance at lectures extending over at least 5 sessions of 8 mos. each in this or some other recognized Univ., Coll., or School of Med.; (3) a minimum attendance at 80 per cent. of certain specified courses in the Univ.; (4) attendance (*a*) for at least 24 mos. at the service of a recognized hospl., (*b*) for at least 6 mos. at the practice of a lying-in hospl. and at least 6 cases of accouchement; (5) at least the final year of Med. instruction in the Univ.; (6) 6 mos. experience in compounding. Several subjects in the Nat. Sc. course may be taken as part of the Med. course and in conjunction therewith, and the degree of B.A. in addition to that of M.D. may thereby be obtained without attendance at the Arts classes.

The *teaching staff* is organized in 6 depts.: Anat.; Gynæc. and Obst.; Med.; Path.; Physiol.; Surg.—each having as its administrative head a "Chief of Dept." Students receive instruction in Chem., Pub. Health, and Genl. Bact. at the *Institute of Public Health*, which was equipped and is maintained by the Ont. Govt. and is under the supervision of the Board of Governors of the Univ. In conjunction with the Institute the Coll. now furnishes a complete course, having acquired up-to-date equipment in all depts. and an addition to the staff of 6 full-time Profs. Of the institutions available for Clinical Instruction, the Vict. and St. Joseph's Hospls. and the Convalescent Home have 400 beds. The Lunatic Asylum has 1000 inmates.

MUSIC. Instruction is given in the London and Brantford Conservatories. Examns. are under the control of the Board of Musical Studies appointed by the Governors of the Univ.

PUBLICATIONS. The *Calendar*, pubd. in July; *Western Univ. Gazette*, pubd. monthly during term.

THE YEAR 1912–13

BENEFACTIONS RECEIVED DURING THE YEAR. The annual grant from London Municipality has been doubled.

NUMBER OF STUDENTS of the Univ. preparing for the Bachelorship or Diploma examns., 40 men, 35 women; for Master's or Doctor's degrees, 120 men.

HONORARY DEGREES GRANTED. *LL.D.*—Hon. William James Roche, M.D., Minister of the Interior, Canada. *D.D.* (at the instance of Huron Coll.)—Charles Cameron Waller, M.A. Camb. and McGill, Principal of Huron Coll.; Joseph Dennis Mullins, M.A. Ox.; Thomas Buchanan Reginald Westgate, German E. Africa; Ven'ble Archdeacon Charles Arundell Hill, M.A. Tor.

OTHER DEGREES. B.A., 6 (including 3 women); M.A., 3 (1 woman); M.D., 27.

AFFILIATED INSTITUTIONS

HURON COLLEGE. *Principal* and Prof. of *Div.* and *Hebrew*—C. C. Waller, M.A. Camb. and McG. *Secretary and Bursar*—Canon Smith. *Other Professors, &c.*, not on the staff of the Univ.—Bishop of Huron, D.D., Lectr. on *Bibl. Exeg.*; Wright, T. G. A., M.A., Asst. Prof.; Young, E. H., B.D., Resident Prof.; Tucker, L. N., M.A., D.C.L., Lectr. on *Missionary Work*; Shirley, J. A., B.A. Tor., Resident Tutor.

This College was formerly the Faculty of Theology of the Univ., the Arts building of which is situated in the Coll. Campus. The Univ. has now become entirely undenominational in character. The Coll. is Protestant and Evangelical in its principles. There is a Coll. entrance examn., including Scripture. Four courses are open to students of the Coll.: (A) A 4 yrs. Arts course at the Univ. leading to the B.A. degree, combined with a 5th yr. devoted to Theol. and leading to the B.D. degree. Grads. of Westn. or other Univs. who study Theol. during 1 or 2 yrs. (according to the course previously taken) and pass the prescribed examns. may obtain the Coll. Testamur. (B) 3 yrs. of Theol. study for undergrads. in Arts who have already completed 2 yrs. of their course and propose to take the B.D. degree under the Canon of the Genl. Synod of Sept. 1911. (C) 3 yrs. of Theol. study for students who have completed the 1st yr. in Arts in the Western Univ. and propose to offer themselves for Holy Orders. (D) Under special circumstances a 3 yrs. course of Theol. without previous study in the Univ.

The Coll. requires that all candidates for Holy Orders shall have

attained the B.A. degree with Theol. subjects or passed the Prelim. examn. of the Board of Examiners for Degrees in Div. (*see* Appendix VI).

London Conservatory of Music. *Principal*—F. L. Willgoose, A.R.C.O., Mus.Bac.

Brantford Conservatory of Music. *Principal*—W. Norman Andrews, Dip. Leip.

ASSOCIATED INSTITUTION

Institute of Public Health. Maintained by the Province of Ontario ; managed by the Westn. Univ. *Director*—H. W. Hill, M.B., M.D., D.P.H. Other Chiefs of Divisions—E. Fidlar, B.A., M.B. ; A. J. Slack, Ph.C.

UNIVERSITY OF WESTERN AUSTRALIA, PERTH

[Established under an Act of 1911 of the W. Australian State Legislature, 1912. Opened 1913.]

CHANCELLOR	Hon. Sir WINTHROP HACKETT, K.C.M.G., M.A., LL.D.
PRO-CHANCELLOR	C. ANDREWS, M.A., Inspector-General of State Education.
VICE-CHANCELLOR	Prof. H. E. WHITFIELD, B.A., B.E.
WARDEN OF CONVOCATION	Rt. Rev. C. O. L. RILEY, D.D., Bishop of Perth.
REGISTRAR	S. E. TOWNSHEND, B.A., LL.B.

PROFESSORS AND LECTURERS.

AGRICULTURE
PATERSON, J. W., B.SC., PH.D. Prof.

BIOLOGY
DAKIN, W. J., D.SC., F.L.S. Prof.

CHEMISTRY
WILSMORE, N. T. M., D.SC., F.C.S. Prof.

CLASSICS and Anc. Hist.
WOOD, G., M.A. Lectr.

ENGLISH
MURDOCH, W., M.A. Prof.

FRENCH and German
SUDDARD, E., B.-ÈS-L., L.-ÈS-L. Lectr.

GEOLOGY
WOOLNOUGH, W. G., D.SC. Prof.

HISTORY and Economics
SHANN, E., B.A. Prof.

MATHEMATICS and Physics
ROSS, A. D., M.A., D.SC., F.R.A.S., F.R.S.E. Prof.
TATTERSALL, G., M.SC., F.I.C. Lectr.

MINING and Engineering
THE VICE-CHANCELLOR Prof.

PHILOSOPHY, Ment. and Mor.
LE CONTOUR, P. R., M.A. Lectr.

VETERINARY SCIENCE
WESTON, E. A., B.V.SC. Lectr.

GENERAL INFORMATION

By the establishing Act the State Treasury was charged with a direct annual payment to the Univ. of a minimum sum of £13,500. After the passing of the Act an Organizer was engaged, and later on the Governor of the State appointed the first Senate, consisting of 18 members, 2 of whom were women holding Univ. degrees. The Univ. was actually brought into being by the appointment of the Senate, early in 1912, and that body immediately took into considera-

tion the scheme formulated by the Organizer. It was decided that the Univ. should be modelled as far as possible on the lines of other Australian Univs. Other steps of a preliminary nature were taken, the chairs of the Univ. were decided upon, and Professors and Lecturers appointed ; Convocation assembled, and the first term of the new institution was opened in March 1913. A peculiarity of this Univ. is that no tuition fees are charged. The headquarters of the Univ. are Crawley Park, Perth, W.A.

Benefactions. The Chair of Agriculture is endowed by the Chancellor of the Univ. Other benefactions have been received from citizens of the State.

Students. The number of students entered at the Univ. for the first term was approximately 200.

ROYAL ALBERT MEMORIAL UNIVERSITY COLLEGE, EXETER

[Founded in 1865. Made a University College in 1901.]

VISITOR	ALEX. HILL, M.A., M.D. Camb. F.R.C.S.
PRINCIPAL	A. W. CLAYDEN, M.A. Camb.
REGISTRAR AND SECRETARY	A. WOODBRIDGE.

PROFESSORS, LECTURERS, ETC.

ANATOMY, Hygiene, &c.
DOMVILLE, E. J., M.R.C.S. Lectr.

ART [School of Art.
MORRALL, W. B., A.M.C. Headmaster

BIOLOGY
SAGER, J. L., M.A. CAMB. Lectr.

CHEMISTRY
LEWIS, W. H., M.A. OX. Prof.
SOUTHERDEN, F., B.SC. LOND., F.I.C. Lectr.

CLASSICS
FLETCHER, F., B.A. OX. Lectr.

EDUCATION and Philosophy
DEAN, A. E., M.A., M.LITT. DURH. Prof.
WALKER, MISS A. J., M.A. BIRM., B.A. LOND. Lectr.
STORY, MISS W. Lectr.
JERVIS, W. W., B.SC. DURH. Lectr.

ENGINEERING and Manual Training
TOMS, R., A.M.I.M.E. Chief Instr.

ENGLISH
MORGAN, A. E., M.A. DUB. Lectr.
MAJOR, MISS I., B.A. LEEDS Lectr.
WALKER, MISS (v. *Educn.*) Lectr.

GEOLOGY and Geography
THE PRINCIPAL Lectr.
JERVIS, W. W., B.SC. DURH. Lectr.

HISTORY and Economics
HARTE, W. J., M.A. OX. Prof.

LANGUAGES, Modern
SCHOPP, J. W., M.A. LOND. Lectr.

MATHEMATICS
LUNN, H. F., M.A. CAMB. Prof.
GRAY, MISS M. F., B.SC. DURH. Lectr.
BALCHIN, W. Lectr.

Maths. and Physics
TROTT, J. Lectr.
JERVIS, W. W., B.SC. DURH. Lectr.

PHYSICS
THE PRINCIPAL Prof.
READ, R. S., B.A. CAMB., B.SC. LOND. Lectr.

CHANGES IN STAFF

Dean, A. E., apptd. *vice* Forster.
Forster, J. M., Prof. of Educn., &c., apptd. Principal of Dudley Training Coll.
Gray, Miss M. F., apptd. *vice* Kemsley.
Kemsley, Miss E. Cole, B.Sc. Tasm., Lectr. in Maths., resigned.

GENERAL INFORMATION

The work of this College falls under the following heads: (i) Univ. Classes preparing for the degrees in Arts and Science of London Univ. and other advanced examns. (ii) Dept. of Educn. preparing for Diplomas of Camb. and Lond. Univs. and of the Coll. of Preceptors for Secondary Teachers. It is recognized by the Board of Educn. for the training of 150 men and women students as Teachers in Elem. Schools. (iii) School of Art, including Design and Life Schools, and providing also instruction in Archit. (iv) Junior Engin. and Manual Training School. (v) Evening Classes.

Lectures are also delivered by the Coll. staff in the county during the winter terms.

Hostels. One, undenominational, in Castle Street, *Warden*—Miss A. J. Walker; another, the Diocesan, St. David's Hill, *Lady Supt.*—Miss R. Berwick.

Publications. The *Calendar*, issued in Aug. free of charge; a students' mag. pubd. each term; the *College Field Club Proceedings*.

THE YEAR 1911–12

Benefactions. £6000 has been received towards the fund which is being raised for the endowment of the Coll.

Number of Students preparing for Bachelorship or Diploma examns. Day, 44; evening, 4; Day Training Dept. (2 yrs. course), 144; total, 192. Other day students: occasional, 90; Engin., 33; Art (Fine and Applied), 51; evening classes—Arts, Science, and Tech., 464; Art, 81. Total, day classes, men 170, women 196; evening, men 351, women 194.

Number of Degrees obtained in 1912. Men, 2; women, 1.

UNIVERSITY COLLEGE OF NOTTINGHAM

[Incorporated by Royal Charter dated Aug. 27, 1903.]

PRESIDENT	His Grace the DUKE OF PORTLAND, K.G.
PRINCIPAL	W. H. HEATON, M.A.
REGISTRAR	T. P. BLACK, M.A., M.Sc., Ph.D.

PROFESSORS, LECTURERS, ETC.*

ACCOUNTANCY and Book-keeping

BAGGALEY, R. B., A.C.A. Lectr.
BAILEY, E., A.C.I.S. Lectr.

BANKING, Practical

ELDERKIN, G. W. Lectr.

BIOLOGY

CARR, J. W., M.A. Prof.
Botany and Zoology
HOLDEN, H. S., M.SC. Lectr. and [Demr.

CHEMISTRY and Metallurgy

KIPPING, F. S., PH.D., D.SC., F.R.S. Prof.
CAVEN, R. M., D.SC. Lectr. and Demr.
SAND, H. J. S., PH.D., D.SC. ,,
LAMBOURNE, H., B.SC. ,,

CLASSICS and Philosophy

GRANGER, F. S., D.LIT., M.A. Prof.
BARKER, E. P., M.A. *Classics* Lectr.
BUMBY, F. E., B.A. *Classics* Lectr.

COMMERCE and Economics

TODD, J. A., B.L. Prof.
For Tutorial Classes
SMITH, E. A., B.SC. Lectr.

EDUCATION

HENDERSON, A., B.A. Prof.
BIRD, MISS, L.L.A. Senior Normal Mistress.
REINTJES, MISS, L.L.A. Second Normal Mistress.
NEWTON, W. H., B.SC. Normal Master.
DREW, F. W., B.A. Lectr.
SMITH, E. A., B.SC. Lectr.
WARD, MISS Lectr.
BECKET, MISS, B.A. Lectr. & Tutor.
STANLEY, A. Drawing Master.

ENGINEERING

BULLEID, C. H., M.A., A.M.I.C.E. [Prof.
Civil Engineering
THOMAS, W. N., B.SC., A.M.I.C.E. Lectr. and Demr.
Drawing and Design
WESTMORELAND, J., M.I.MECH.E. Lectr. and Demr.
Electrical Engineering
SHELDON, R. A., M.SC., A.M.I.E.E. Lectr. and Demr.
Fitting and Turning
PARR, A. Lectr. and Demr.
Geometry, Practical
BIRD, A. W., B.SC. Lectr. and Demr.
Mech. and Elec. Engineering
INCHLEY, W., B.SC., A.M.I.M.E. Lectr. and Demr.

* Including 33 part-time Lecturers.

Motor-car Engineering
HARRISON, W. P. L. Lectr. & Demr.
Pattern Making, &c.
HOLLINGWORTH, W. Lectr. & Demr.
(v. also *Telegraphy*)

GEOLOGY and Geography
SWINNERTON, H. H., D.SC. Prof.
Geography
HEATH, MISS M. E. Lectr.

HISTORY [and Senr. Lectr.
DOLLEY, R. C. F., M.A. Director
BECKET, MISS E. M., B.A. Lectr.
GUILFORD, E. L., M.A. Lectr.

HISTOLOGY and Physiology
HUTCHINSON, MISS Lectr. & Demr.

HYGIENE and Sanit. Science
COTTERILL, W. H. Lectr.

LANGUAGES and Literature
English
BOND, R. W., M.A. Prof.
BUMBY, F. E., B.A. Lectr.
HEWITT, R. M., M.A. Lectr.
French
WEEKLEY, E., M.A. (Head of Dept. of *Mod. Langs.*) Prof.
CÉCILIA, J. DE LA, L.-ÈS-L. Lectr.
German
SCHAMBERGER, W. Lectr.
German and Phonetics
MUTSCHMANN, H., PH.D., M.A. Lectr.
Hebrew
SANDERS, H. F., B.A., B.D. Lectr.
Italian and Spanish
BUSATO, L., L.-ÈS-L. Lectr.

LAW
HUNTSMAN, E. Director & Lectr.
Commercial
LINDLEY, T., LL.D., BAR.-AT-LAW
Evening Classes Lectr.

MATHEMATICS
HEATON, W. H., M.A. Prof.
TAYLOR, F. G., M.A., B.SC. Lectr.
PIAGGIO, H. T. H., M.A., B.SC. Lectr.
JOHNSON, W. H., B.SC. Lectr.
SHIPLEY, A. E. Lectr.
WYATT, H. F. M., B.SC. Lectr.

METALLURGY, v. *Chemistry*

MINING [Prof.
MC MILLAN, W. H., B.SC., M.I.M.E.
HANCOCK, F. Lectr. and Demr.

MUSIC
GILL, A., F.R.A.M. Prof.
BARBER, E. M., L.R.A.M. Lectr.

PHILOSOPHY, v. *Classics*

PHONETICS, v. *Langs.*

PHYSICS
BARTON, E. H., D.SC., F.R.S.E. Prof.
SIMPSON, A. H., F.R.M.S.
Lectr. and Demr.
SHAW, P. E., B.A., D.SC. ,,
WILKINSON. A., B.SC. ,,
PIPER, S. H., B.SC. ,,

PHYSIOLOGY, v. *Histol.*

TECHNOLOGY (v. also *Engin.*)
ROBINSON, W., M.E., M.I.C.E., M.I.M.E., M.I.E.E. Prof.
Building
BOOTH, A. Lectr.
Hosiery
QUILTER, J. H. Lectr.
PIKE, H. H. Lectr. and Demr.
Printing
EVERARD, H. W. Lectr. and Demr.
RIDDELL, J. R. Lectr. and Demr.
PIKE, A. Lectr. and Demr.
Plumbing
DENYER, J. Lectr. and Demr.
SIMPSON, A. H. ,,
LOCKWOOD, R. P. C. ,,

TELEGRAPHY and Telephony
WALKER, A. T. Lectr.
BROOKES, A., B.ENG. Lectr.

ZOOLOGY, v. *Biology*

CHANGES IN STAFF IN 1912–13

Bulleid, C. H., of the Parsons Marine Turbine Works, Newcastle-on-Tyne, apptd. *vice* Morley.
Dolley, R. C. F., Lectr. in Hist., apptd. Dir. of the Dept. of Hist.
Drew, F. W., apptd. Lectr. in Education.
Guilford, E. L., apptd. Lectr. in History.
Hancock, F., apptd. Lectr. in Mining.
Heath, Miss M. E., apptd. Lectr. in Geography.
Lambourne, H., apptd. *vice* Robison.
MacDougall, A., apptd. Lectr. in English.
Morley, A., M.Sc., Prof. of Engin., apptd. Inspector under the Board of Educn. for the Newcastle-on-Tyne Dist.
Robison, R., Ph.D., B.Sc., Lectr. in Chem., apptd. Research Chemist in Lister Inst. of Prev. Med.
Swinnerton, H. H., Lectr. in Geol., apptd. Prof. in charge of Dept. of Geol. and Geog.
Todd, J. A., Lectr. in Econ. in the Khedivial Sch. of Law, Cairo, apptd. Prof. in charge of Dept. of Econ. and Commerce.

GENERAL INFORMATION

The objects of the College as defined in the Charter are: (1) To enable residents of Nottingham and the neighbourhood to qualify for degrees at any of the Univs. in the U.K., and (2) to provide such scientific, technical, and other instruction as may be of immediate service in professional and commercial life. A special feature of the Coll. is accordingly the extensive provision made for *Evening Classes*.

Departments. Biol.; Chem.; Classics and Philos.; Econ. and Commerce; Educn.; Engin.; English; Geol. and Geog.; Hist.; Law; Maths. and Physics; Mining; Mod. Langs.; Music; Technology; Tutorial Classes for workpeople.

Admission. The minimum age for admission is 16. Before admission full-time students must, except in Engin. and Mining, for which a special entrance examn. is provided, have passed the London Matricn. or an equivalent examn. or give evidence of having reached this standard.

Terms, 1913–14. First term begins Sept. 29; second, Jan. 12; third, April 20.

Diplomas, &c., and Courses. The Coll. provides courses leading to the Pass and Honours Degrees of London Univ. in Arts, Divinity, Econ., Science, Engin. (Civ., Mech., and Elec.), and Mining; to the Coll. Diplomas in Commerce, Engin., and Mining; to the Elem. Teacher's Certif. of the Board of Educn.; to the Camb. Univ. Diploma for Secondary Teachers; to the Law Society's examns.; to the A.I.C.;

to the D.P.H. (Conjoint Board R.C.S. and P., and Oxford); and to the Colliery Manager's Certif., &c. Post-grad. and Research courses are also provided. To students of the Coll. who have satisfactorily attended for 3 yrs. any Degree or Diploma course and passed the appropriate examns., or qualified for the Ox. or Camb. Affiliation Certif., the title of Associate of Univ. Coll. Nott. is granted.

For the Coll. Diploma in Commerce, Engin., or Mining the course covers 3 yrs. The course in Mining (which has been approved by the Home Secy. for the purposes of the Coal Mines Regn. Act Amendment Act, 1906) may be taken in 2 yrs. by a student who already has a satisfactory knowledge of the Prelim. part of it. Four months practical work in a mine is obligatory. For the Diploma in Mine Surveying a 2 yrs. course is provided. For the Colliery Manager's First Class Certif. a course extending over 3 yrs. (1 afternoon and 1 evening Oct. to April, 1 afternoon May to July).

Libraries. Each Dept. has its own. Special arrangements are made for the use of the City Reference Library and the City Museum, which adjoin the Coll.

Residential Facilities. Mapperly Hall for men (primarily for students in the Day Training Dept.) has accommodation for 39 students besides the Head of the Training Coll. Hylton House Hostel for women has accommodation for 16. Registered students must reside in lodgings approved by the Coll. authorities.

Publications. The *Prospectus*, pubd. in July; the *Calendar*, in Sept.; the students' mag., *The Gong*, 3 times a year; the *Univ. Bulletin*, by the Univ. Soc. of the East Midlands, twice a year.

THE YEAR 1912–13

Fresh Sources of Revenue. Colliery proprietors and royalty owners have undertaken to contribute about £300 annually towards the maintenance of the Mining Dept.

External Work. The Univ. Tutorial Classes for workpeople are now organized as a Dept. under the control of a Joint Committee of the Coll. and the Workers' Educational Assocn. (Nottingham branch). Mr. E. A. Smith (Lectr. on Educn.) is Organizer and Lectr. for these classes, of which 2 are being conducted in Nottingham, 1 at Leicester, 1 at Mansfield, and 1 at Sutton-in-Ashfield. The local branches of the following societies also work in connexion with the Coll.: Class. Assocn.; Hist. Assocn., Soc. of Chem. Industry, Nott. Naturalists' Soc.

Number of Students. Full-time preparing for Degrees or Diplomas, 229 (including 99 women); occasional, 80 (15 women); evening, 1302 (142 women); post-grad.; 11; Research, 6; continuing study or research elsewhere, 3.

NUMBER OF DEGREES AND DIPLOMAS OBTAINED. Degrees, 33 men, 6 women ; Diplomas, 60 men, 49 women.

CHANGES OF POLICY. It is proposed to reconstitute the Court of Governors and Council on a broader basis.

OTHER NEW DEVELOPMENTS. Opening a of Women's Hostel ; improvement of records of after-careers of students.

RELATIONS WITH OTHER INSTITUTIONS. An East Midland Educational Union has been formed with headquarters in the Coll. and under the presidency of the Principal. It comprises authorities of the counties of Notts, Derby, Leicester, Kesteven Div. of Lincoln, Northants, and the county boroughs of Nott., Derby, and Lincoln, and nearly all educational institns. within their areas.

The North of England EDUCATIONAL CONFERENCE was held in Jan. 1913 within the Coll.

UNIVERSITY COLLEGE, READING

[Opened as "The Univ. Extension Coll. in conjunction with the Schools of Science and Art, Reading," Sept. 29, 1892. Incorporated as a Company limited by guarantee and without power of taking profits, Jan. 1896. Affiliated to the Univ. of Oxford (as "Reading Coll."), Feb. 21, 1899. Recognized by Govt. as a Univ. Coll. and name changed to Univ. Coll., Reading, 1902.]

VISITOR	The DEAN OF CHRIST CHURCH, OXFORD.
PRESIDENT OF THE COURT OF GOVERNORS	J. H. BENYON, M.A., J.P., Lord-Lieutenant of Berkshire.
VICE-PRESIDENTS	The LADY WANTAGE. H. J. MACKINDER, M.A., M.P.
CHAIRMAN OF COUNCIL	A. PALMER, J.P.
PRINCIPAL	W. M. CHILDS, M.A. Ox.
TREASURER	W. A. MOUNT, M.A., M.P.
SECRETARY AND REGISTRAR	F. H. WRIGHT, M.A.
TUTORIAL SECRETARY	H. KNAPMAN, M.A.

PROFESSORS, LECTURERS, ETC.

AGRICULTURE and Horticulture

HART-SYNNOT, R. V. O., D.S.O., B.SC. LOND. Dean & Director of Faculty and Tutor.

Agriculture

PENNINGTON, S., B.SC. EDIN., M.R.C.V.S. Lectr.

HUNTER, T. Live Stock Adviser.

MACKINTOSH, J., N.D.A., N.D.D. Lectr. in *Dairy Farming*.

Agric. Botany [Prof.

PERCIVAL, J., M.A. CAMB., F.L.S.

WILLIAMS, R. S., M.B., C.M., B.SC. EDIN., L.R.C.P. AND S.E., D.P.H. CAMB. Research Bacteriologist in *Dairying*.

HECTOR, J. M., B.SC. ABERD. Plant Pathologist.

MASON, MISS G. H., N.D.D. Research Asst.

Agric. Chemistry

AULD, S. J. M., D.SC. LOND.; PH.D. WÜRZ., F.I.C. Prof.

GOLDING, J., F.I.C. Research Chemist in *Dairying*.

MURRAY, J. A., B.SC. EDIN. Lectr.

CARTER, R. H., N.D.A. Analyst.

Horticulture

DREW, F. G., F.R.H.S. Lectr. and Practical Lectr. and Practical Instr.

Veterinary Hygiene

MALE, G. P., M.R.C.V.S. Lectr. (v. also *Dairying*)

ART

Dept. of Fine Arts

SEABY, A. W. Director.

Five Teachers and an Asst. in *Drawing and Painting, Design, Modelling,* and *Handicrafts*.

BOTANY

KEEBLE, F., M.A., SC.D. CAMB., F.R.S. Prof.

JONES, MRS. W. N., B.SC. LOND. Lectr.

MCLEAN, R. C., B.SC. LOND. Lectr.

COOMBS, G. E., B.SC. LOND. Asst. Lectr.

CHEMISTRY [Prof.

BASSETT, H., D.SC. LOND., PH.D. MUN., D.-ES-SC. NANCY, F.I.C.

DODGSON, J. W., B.SC. LOND. Lectr.

EVEREST, A. E., M.SC. BIRM. Lectr.

CLASSICS

URE, P. N., M.A. CAMB. Prof.

HAIGH, W., M.A., B.SC. LOND. Lectr.

ATKINSON, D., B.A. OX. Research Fellow in *Rom. Archæol.*

COMMERCE and Technical Subjects [of Dept.

THE PROF. OF GEOG. Director

Book-keeping, &c.

TAYLOR, H., F.L.A.A. Lectr.

Building Construction, &c.

HITCHINS, W. W., M.S.A., P.A.S.I. Lectr.

Machine Construction, &c.

STEDMAN, G. P.W., A.M.I.M.E. Lectr.

Two Assts. in above and 3 Teachers of *Dressmaking, &c.*, *Household Management, &c.*, and *Gas Fitting and Supply.*

DAIRYING (v. also *Agric.*)

BENSON, M., Manager of B.D.I. and Chief Instructor; an Asst. Manager; and an Instructress.

ECONOMICS [Lectr.

BOWLEY, A. L., SC.D. CAMB., F.S.S.

EDUCATION, Primary

COOKE, H. S., M.A. OX. AND CAPE Lectr. & Master of *Method.*

BOLAM, MISS M., SOM. COLL. OX., M.A. DUB. Lectr.

WOLTERS, A. W. P., M.A. LOND. Lectr.

An Asst., a Teacher of *Needlework*, and an Instr. in *Phys. Exerc.*

Secondary Education

ASHCROFT, MISS L., NEWN. COLL. CAMB., M.A. DUB. Lectr.

GEOGRAPHY

DICKSON, H. N., M.A., D.SC. OX., F.R.S.E. Prof.

GEOLOGY

HAWKINS, H. L., M.SC. MANC., F.G.S. Lectr.

HISTORY, Modern [Prof.

STENTON, F. M., M.A. OX., F.R.H.S.

THE PRINCIPAL Hon. Prof.

SACRET, J. H., M.A. OX. Lectr.

HYGIENE

COLEMAN, M. W., M.D. LOND., M.R.C.S., L.R.C.P. Lectr.

LANGUAGES and Literature

English Literature

DEWAR, R., M.A. GLAS. Prof.

English Language

MORLEY, MISS E. J. Prof.

Engl. Lang. and Lit.

CROFTS, J. E. V., B.A. OX. Lectr.

French [Prof.

SALMON, A. V., B.-ÈS-L. PARIS

COUTURIER, L. M. J., L.-ÈS-L., M.A. LOND. Lectr.

SHARPS, MISS M. F., B.A. LOND. Sessional Lectr.

1 Assistant.

German

HOLL, K. C., PH.D. HEID. Lectr.

HAIGH, W., M.A., B.SC. LOND. Lectr. for Evening Classes.

MATHEMATICS

MCLAREN, S. B., M.A. CAMB. Prof.

ASHCROFT, MISS L., M.A. DUB. Lectr.

CLATWORTHY, J. P., B.SC. LOND. ,,

KNAPMAN, H., M.A. CAMB. ,,

1 Assistant.

MUSIC

ALLEN, H. P., M.A. CAMB., D.MUS. OX. Director of Dept.
14 other Teachers.

PHILOSOPHY

DE BURGH, W. G., M.A. OX. Prof.
WARD, S. B., B.A. OX. Lectr.
Psychology [Lectr.
WOLTERS, A. W. P., M.A. LOND.

PHYSICS

DUFFIELD, W. G., B.A. CAMB., D.SC. MANC. AND ADEL. Prof.
PEARSON, R. L., A.M.I.E.E. Lectr.
SADLER, C. A., D.SC. LIV. Lectr.

VET. HYGIENE, v. *Agric.*

ZOOLOGY

COLE, F. J., D.SC. OX. Prof.
EALES, MISS N. B., B.SC. LOND. Museum Curator.

CHANGES IN STAFF

Auld, S. J. M., appointed Prof. of Agric. Chemistry.
Dewar, R., apptd. Prof. of Engl. Literature.
McLaren, S. B., apptd. Prof. of Mathematics.
(*v. also* additions to staff mentioned under "New Posts," p. 537.)

GENERAL INFORMATION

Under the Articles of Incorporation the College is governed by a Court of Governors, a Council, and an Academic Board. The Court and Council include representatives of the Reading Town Council, the Reading Education Committee, the Univ. of Ox., and of the County Councils of Berks, Bucks, Hants, Middlesex, and Oxon. Joint Committees, established in 1894 and 1895, representative of (1) the Ox. Univ. Extension Delegacy, the Coll. Council, and the R.A.S. of England, and (2) the British Dairy Farmers' Assocn. and the Coll., control the Agric., Dairying, and Hort. Diploma examns. and the British Dairy Inst. respectively. There are 3 *Faculties*—Letters, Science, and Agric. and Horticulture—and 3 *Departments*—Fine Arts, Music, and Commerce and Technical subjects. The Coll. is recognized by the Board of Education as a Training Coll. for Teachers, by the R.C.P. and S. (in Nat. Science), and by the Surveyors' Institn. The Faculty of Agric. and Hortic. receives grants from the Board of Agric., is subject to its inspection, and has been constituted the National Institute for Research in Dairying.

ADMISSION. The Day Classes are open to men and women students above the age of 16, the Evening Classes (held in all Faculties and Depts. except Agric.) to students above 15. A student admitted under tutorial supervision to one of the recognized regular day courses or a specially arranged course of day study is designated a matriculated student. An entrance examn. has to be passed for admission to the Diploma courses in Agric. and Hortic.

TERMS 1913–14. Autumn, Oct. 2 to Dec. 17; Lent, Jan. 15 to March 18; Summer, April 23 to July 1.

College Diplomas of Associateship are awarded in Letters, Science, Agric., Hortic., Fine Art, Music, Commerce; and Certifs. in Agric., Dairying, Hortic., Metal-work, Wood-carving, Embroidery, Leather-work, and Commerce. There is also a Diploma in Dairying. The courses in connexion with which Diplomas are awarded extend over 2 yrs. in most cases. For the Fine Art and Music Diplomas they cover 3 yrs.

Letters and Science. The courses have been organized with reference to the following, as well as to the Coll. Diplomas: Univ. of London examns. in Arts and Science up to the M.A. and B.Sc. (Pass and Honours) and 2nd examn. for Med. Degrees, Pt. I; Camb. Teachers' Certif.; 1st examn. of the R.C.P. and R.C.S. The external examiners for Diplomas are appointed by the Univ. of Ox.

Agriculture and Horticulture. A full 3 yrs. course for the Lond. B.Sc. in Agric. is provided. Practical training is conducted on the Coll. farm of 141 acres at Shinfield, 2½ miles from Reading, which is worked mainly as a dairy farm. Practical instruction in Hortic. is given in the Coll. and St. Andrew's Hall gardens, 6 acres in extent. Students who, having gained the Diploma in Agric. or in Dairying or in Hortic., spend a 3rd yr. at the Coll. pursuing special courses may obtain a Diploma with distinction. The Certif. courses cover 6 mos. in the case of Agric. and 1 yr. in Dairying and in Hortic. There are 2 examrs. in each subject for Diploma and Certif. examns., 1 being a member of the Coll. staff and the other external. For the Diplomas both are appointed by the Ox. and Reading Joint Committee. Short courses in Dairying (6 mos. and 3 mos.) adapted to the examns. of the British Dairy Farmers' Assocn. or (the 6 mos. course) for the National Diploma in Dairying are provided jointly by the Faculty and the B.D.Inst. In 1913 an Advisory Council of Reading Agric. Province (which includes Berks, Bucks, Dorset, Hants, I. of W., M'sex, and Oxon) was established to secure a maximum of joint action by the various authorities therein in the general development of Agric. The staff of the Coll. offer help to agriculturists by correspondence, visits, and local lectures.

Fine Arts. The groups undertaken by the Dept. are Drawing, Painting, and Modelling; Archit.; Artistic Handicrafts; Design; Methods of Teaching; Illuminating and Engraving. The Dept. is recognized by the Board of Educn.

Music. The courses have been arranged with reference to the following, as well as to the Coll. Diploma: Mus. B. examns. of Ox., Dub., Lond., and Durh.; L.R.A.M., A.R.C.M., A.R.C.O., and F.R.C.O. examns.; Higher examns. of Trin. Coll., Lond., for professional Diplomas.

Commerce. The Certif. course covers 1 session and includes Maths. and Arith.; French or German; Geog. (general); Bookkeeping;

Business Method (elem.) and Précis Writing. This constitutes the 1st yr.'s work for the Diploma, the Final examn. for which includes Maths., Phys., and Chem.; Comml. Geog. and Materials, Industries and Products; the lang. offered in the Certif. examn.; Principles of Commerce; Bookkeeping and Business Method (advanced); two other subjects. Students preparing for the Coll. examns. can at the same time work for examns. such as those of the London Chamber of Comm., R.S.A., Inst. of Bankers, and Inst. of C.A. Special Secretarial courses and facilities for advanced and research work are provided, including collections from India and other parts of the British Empire and monographs relating thereto.

Technical Subjects. A 1 yr.'s course in Domestic Subjects is provided. Students should gain during the course the City and Guilds Certifs. in Cookery and Needlework. There are also second year courses in Cookery and Dressmaking. Evening Classes are held (1) in machine construction and drawing for the examns. of the Board of Educn. and City and Guilds of London Inst. as well as for the Coll. certif. examn.; (2) in building construction and builders' quantities for such examns. and for those of the Surveyors' Institn.; (3) in gas fitting and supply; (4) in cookery and needlework.

Training of Teachers. (i) For Primary Schools. Students may take the 3 yrs. course for the Lond. B.A. or B.Sc. or the 2 yrs. course for the Coll. Diploma in Letters (which may be followed by a 3rd yr.'s course of special study), or, if they have already passed the Interm. examn., the 2nd and 3rd yrs. courses for the B.A. or B.Sc. (ii) For teaching in Secondary Schools students (women only and preferably graduates), a 1 yr.'s course for the Camb. Certif. is provided.

Research and original work are undertaken in all Faculties. Particulars are published in the annual report of the Academic Board and in each issue of the *Univ. Coll., Reading, Review*. 8½ acres of the Coll. Farm are set apart for special Agric. experiments. Hortic. experiments are also undertaken. Field experiments are conducted at several centres in co-operation with County Councils. Farmers and gardeners are invited to send specimens of diseased plants, pests, &c. The Staff of the Entom. Lab. reports on these. Analyses of farm seeds, soils, waters, manures, products, &c., are undertaken.

Scholarships, &c., for Graduates. There are 2 Research Fellowships, 1 in Science and 1 in Arts, each worth £125 p.a. The subjects in which they are at present held are Zool. and Roman Archæol. Special grants are occasionally made to individuals to encourage research.

Women attend the same classes as men students, and all the courses, diplomas, &c., are open to them on the same terms as men.

Residential Facilities. Wantage Hall of Residence has accommadation for 77 men students; St. Patrick's Hall, for 65; St. Andrew's

Hall, St. George's Hostel, and Wessex Hall provide accommodation respectively for 80, 39, and 20 women students. Other students under Tutorial supervision, whose homes are at a distance from Reading, reside, unless they have obtained the permission of the Principal to reside elsewhere, in recognized houses, the heads of which are responsible to the Coll.

LIBRARY. About 10,000 vols.

MUSEUMS. There is a Zool. Mus. and the nucleus of a collection illustrative of History and Archæol.

LABORATORIES, &c. Phys., Chem., Bot., Zool., Psychol., Entom., Agric. Research, Geol. Labs.; Fine Art studios and School of Music; Farm, &c. (*v. supra*, "Agric.").

UNIVERSITY EXTENSION. Tutorial Classes are held in connexion with the Workers' Educational Assocn. Profs. and Lectrs. give occasional lectures to local assocns., farmers' clubs, &c. College Hall Evening Lectures and Recitals are given in the winter. Classes and Lectures for Sunday-school Teachers are provided at the Coll. under the supervision of an Advisory Committee representative of the Deanery of Reading and District Sunday-school Assocn., Reading Sunday-school Union, and the Coll. Evening Classes are held in all the Faculties and Depts. except Agric. and Hortic.

PUBLICATIONS. The *Calendar*, pubd. in Sept., may be obtained from the Registrar post free for 1s. 3d.; illustrated General and Departmental and Special Course Prospectuses are issued gratis; *A Guide to Evening Classes*, 1d.; papers set in the annual examns. for Diplomas in Agric., Hortic., and Dairying, 3d.; Agric. and Hortic. Bulletins and reports on Agric. and Dairying Topics issued from time to time; "Univ. Coll., Reading, Studies in Hist. and Archæol.," 5 vols.; the *Univ. Coll. Review*, Dec., March, and July, 2s. p.a., contains records of the progress of the Coll. and discussions of educational questions; *Tamesis*, a students' mag., pubd. terminally.

THE YEAR 1912-13

BENEFACTIONS AND FRESH SOURCES OF REVENUE. £3500 for a residence for women students to be known as "Wessex Hall"; endowment of a Reading School Scholarship of £60 p.a. tenable at the Coll. Intimation has been received of intentions to present a gymnasium and £5000 towards the New Building Fund. The Development Commrs. have granted about £2000 p.a. to promote Agric. teaching and research and have promised £10,325 towards new Agric. Labs.

NEW POSTS CREATED. Three lectureships in German, Econ., and Dairy Farming; Research Fellow. in Archæol.; Research Chemist in

Dairying; Research Bacteriologist in Dairying; Plant Pathologist; Live Stock Adviser; Warden of Wessex Hall. The Prof'ship of Maths. has been detached from Economics and made an endowed prof'ship. A whole-time Instr. in Phys. Training has been appointed.

Number of Students. Full-time students preparing for Bachelorship or Diploma examns., 361; occasional, 260; evening, 449; Bachelors preparing for Master's or Doctor's Degree, 2; students (not being teachers) engaged in Research, 7.

The Associateship of the Coll. was in 1913 conferred on 3 persons *honoris causa* and on 77 others, including 41 women. 58 of these Associates took their Diplomas in Letters, 5 in Science, 6 in Agric., 5 in Hortic., 2 in Comm., and 1 in Music. In 1912 the Final degree examns. of the Univ. of Lond. were passed by 25 students of this Coll.—M.A., 2; B.A., 11; B.Sc., 12—and the Camb. Teachers' Certif. examn. was passed by 4.

Changes of Policy, &c. A "Univ. Committee" is drafting curricula and constitution in view of an application to be made for a Royal Charter of incorporation as "The Univ. of Reading."

New Buildings and Equipment. St. Patrick's Hall for men students is completed; Wessex Hall is adapted and furnished for women students; a new gymnasium is being erected; extensive equipment for the Agric. Research Labs. has been obtained.

Additions to Amenities. A new joint (men and women) Common Room has been furnished. The "College eight" entered for the first time for Henley Regatta.

Other New Developments. A register of present occupations of past students is being compiled.

Relations entered into with other Institns. The Palmer Scholarship (*see* "Benefactions") is a useful link with Reading School.

Important Conferences with regard to Agric. Educn. under the Development Act have been held, at one of which the Rt. Hon. W. Runciman presided. The Headmasters' Conference was held in Reading in Dec. 1913.

HARTLEY UNIVERSITY COLLEGE, SOUTHAMPTON

[Founded 1850; opened as the Hartley Institute, 1862. Incorporated as the Hartley University College in accordance with a scheme of the Board of Education, 1902.]

PRESIDENT	CLAUDE G. MONTEFIORE, M.A.
VICE-PRESIDENT	Sir GEORGE A. COOPER, Bart.
TREASURER	WILLIAM ERASMUS DARWIN, M.A.
PRINCIPAL	ALEX HILL, M.A., M.D., F.R.C.S.
REGISTRAR	D. KIDDLE.

PROFESSORS, LECTURERS, ETC.

ACCOUNTANCY and Comml. Law

VACANT — Lectr.

ARCHITECTURE — [Lectr.

PARKER, T. A., A.R.I.B.A., A.R.SAN.I.

ART — [Instr.

CONWAY, MISS E. I., A.R.C.A. LOND.

BIOLOGY and Geology

SUTHERLAND, G. K., M.A., B.SC. ABERD. — Prof.

EASTWOOD, A., B.SC.LOND., A.R.C.S., F.G.S. — Lectr.

CHEMISTRY

BOYD, D. R., D.SC. GLAS., PH.D., F.I.C. — Prof.

MARLE, E. R., B.SC. LOND., A.R.C.S. — Lectr.

EDUCATION and Philosophy

MAXWELL, J. J., M.A. LOND. — Prof.

DUDLEY, G., B.A., LL.B. R.U.I. — Lectr.

JONES, LL. WYNN, M.A. OX., B.SC. WALES, PH.D. — Lectr.

FOX, MISS A. G., B.A. LOND. — Lectr.

ENGINEERING, Civ. and Mech.

EUSTICE, J., B.SC. LOND., A.R.S.M., A.M.I.C.E. — Prof.

BALDWIN-WISEMAN, R., M.SC. MANC., A.M.I.C.E., P.A.S.I., A.M.I.M.E. — Lectr.

FORD, G. P. — Demr.

Engin., Elec., v. Physics

GEOGRAPHY

FAWCETT, C. B., B.LITT. OX., B.SC. LOND., F.R.G.S. — Lectr.

HISTORY and Political Econ.

LYTTEL, E. S., M.A. OX. — Prof.

HORROCKS, J. W., D.LIT. LOND. — Lectr.

LANGUAGES and Literature

Classics and Engl. Lit.

MASOM, W. F., M.A. CAMB. AND LOND. — Prof.

CRAWFORD, T., M.A. LOND. — Lectr.

AUBREY, MISS E. R., M.A. LOND. — ,,

MACKIE, W. S., M.A. ABERD., B.A. OX. — Lectr.

French and German

VACANT — Prof.

HAMILTON, MISS G. H. — Asst.

German and Spanish

ARON, E. M., B.A. CAMB. — Lectr.

MATHEMATICS, Pure and Applied

WATKIN, E. L., M.A. CAMB. — Prof.

PHILLIPS, F., B.SC. LOND., F.C.P. Lectr.
STREET, R. O., B.A. CAMB. Lectr.

MUSIC

LEAKE, G., MUS.BAC., F.R.C.O. Instr.

PHYSICS and Elec. Engin.

STANSFIELD, H., D.SC. LOND., A.M.I.E.E. Prof.
DIXON, E. H., B.SC. LOND., A.M.I.E.E. Lectr.
TOMLINSON, H. J., B.SC. LOND., A.I.E.E. Lectr.
FARRAR, D., M.SC. MANC. Lectr.

CHANGES IN STAFF

Aron, E. M., apptd. Lectr. in German and Spanish.
Cavers, F., D.Sc., Prof. of Biol. and Geol., resigned.
Cussans, Miss, Lectr. in Educn., resigned.
Fawcett, C. B., apptd. Lectr. in Geography.
Fox, Miss A., apptd. *vice* Cussans.
Hill, Alex, M.A., M.D., F.R.C.S., sometime Master of Downing Coll.; Camb., apptd. Principal in succession to S. W. Richardson, D.Sc., resigned.
Horrocks, J. W., apptd. Lectr. in History.
Mackie, W. S., apptd. *vice* Sterling.
Parker, T. A., apptd. Lectr. in Architecture.
Stansfield, H., apptd. Prof. of Physics *vice* late Principal Richardson.
Sterling, T. S., B.A., Lectr. in Classics and Engl. Lit., resigned.
Street, R. O., apptd. Lectr. in Mathematics.
Sutherland, G. K., apptd. *vice* Cavers.

GENERAL INFORMATION

Classes in Arts and Science prepare for the degrees of the Univ. of London; a Commercial course for the B.Sc. (Econ.). The Coll. has a Dept. of Engineering—Civ., Mech., and Elec. It provides courses for Elem. and Secondary Teachers, for entrance into the Civil Service, Med., Pharmacy, Surveying, &c. It is recognized as a Training Coll. for Elem. Teachers. Through its Evening Classes (attended by upwards of 600 students) it performs the function of a Technical Institute.

PUBLICATIONS. *Calendar*, pubd. in Sept.; *Hartley Mag.*, terminal, 6d.

THE YEAR 1912-13

BENEFACTIONS RECEIVED. The sum of £21,000 was raised in voluntary subscriptions for the erection of a block of buildings for the accommodation of the Arts Faculty and the Training Coll. (part of a scheme for the erection of new buildings for all depts.) on a site of 11 acres in the highest part of the town, which had been purchased in the previous year by 3 friends of the Coll. The County Borough Council made in addition a contribution of £5000, and the Hants

County Council a contribution of £2500. The new buildings were commenced in May 1913.

Fresh Source of Revenue. The County Borough Council of Southampton granted an additional 1d. rate (raising their subsidy to the proceeds of a 2d. rate), equal to about £2500 p.a.

New Departments, &c. A course in Business Method and the Commercial Sciences has been instituted, leading to a Coll. Diploma at the end of 2, and the B.Sc.(Econ.) at the end of 3, yrs.

A Lectr. in Geog. has been appointed in charge of the subject. Modern Langs. have been strengthened by the appointment of a Lectr. in German and Spanish.

University Extension. Courses were given by members of the Staff in Southampton and at 4 other centres. The attendance in Southampton averaged 170.

Number of Students. Full time, preparing for the degree of B.A. or B.Sc., 74; for Diploma, 76; for Certifs., &c., 15. Of the total number 33 were women. Graduate students reading for M.A. or D.Sc., 4.

Conferences. The Association of Technical Institutes met at the College in July 1913.

APPENDIX I

MEDICAL AND DENTAL STUDIES AND QUALIFICATIONS

Summary of the Recommendations of the General Medical Council

A. *Registration of Medical Students*

I. Students should be registered within 15 days of the commencement of their professional studies. For this purpose they should supply evidence of having (*a*) attained the age of 16; (*b*) passed a Prelim. examn. recognized by the Council; and (*c*) commenced Med. study at a Univ. or School of Med., or at a Teaching Institn. *recognized* by one of the Licensing Bodies and *approved* by the Council.

II. *Recognized Preliminary Examns.* A Degree in Arts of any Univ. of the U.K. or of the Colonies, or of certain foreign Univs. is considered a sufficient Testimonial of Proficiency, and the following examns. are recognized:

(i) Oxford and Cambridge Senr. and, if passed before Dec. 31, 1913, Junr. Local (Certifs. to be endorsed as fulfilling the Council's requirements*); Ox. and Camb. Higher Local; Ox. "Responsions" (Certif. to be supplemented by others showing that the required Math. subjects have been passed); Ox. "Moderations"; Camb. "Previous" or "General"; Ox. and Camb. Schools Examn. Board's Higher Certif. or School (or Leaving) Certif.†

(ii) Durham Matricn. of Faculties of Med., Science, Letters, and Music.

(iii) London Matricn. or Senior School.

(iv) Manc., Liv., Leeds, and Sheff. Joint Matricn. Board's Matricn. or (if including Engl. Lang. and Lit., Latin, Maths., Greek or a Mod. Lang., and any 2 other subjects as set out in the Regns. of the Board) Senior School Certif.

(v) Birm. Matricn. or Senr. School Leaving Certif.

(vi) Bris., Wales, Belf., and N.U.I. Matricn.

(vii) Univs. of Scotland Joint Board of Examrs.' Prelim. for graduation in Med. and Surg. or in Arts or Science.

(viii) St. And. Final for the L.L.A. Diploma.

(ix) Dublin (*a*) Junr. Freshman Term (exclusive of Trigonometry); (*b*) Special Prelim. to be held in March, standard and subjects being those of (*a*); (*c*) Junr. Exhibn. (marks of sufficient merit being obtained in subjects of (*a*) or (*b*)); (*d*) for 1st, 2nd, 3rd, or 4th yr. in Arts (Certif. to be signed in approved form by the Med. Registrar of the Univ.).

(x) Certain Govt. and Chartered Bodies' Examns. held in the U.K.

(xi) Prelim. of the R.C.P.I. and R.C.S.I.

* A leaflet is issued by the Council showing what these are.

† *See* the Regns. issued by the Board.

(xii) Certain examns. held out of the U.K. as shown in Statement F, *below*, and others held by the Egyptian Govt. and certain foreign Univs. in Europe.

III. In all cases of examns. (i) to (ix) it must be certified that all the required subjects have been passed at not more than 2 examns. As regards (xii) the Certifs. from the Indian and Colonial Bodies must in addition show* that the examn. has been conducted by or under the authority of the Body granting it. The required subjects are English, Latin, Maths., and either Greek or a Mod. Lang., but in the case of a native of India or other Oriental country whose vernac. is not Engl. an examn. in a Class. Oriental Lang. (*i.e.* Sansk., Arab., Chinese) may be accepted as equivalent to an examn. in Latin.

IV. *Institutions at which Med. Study may be Commenced.*

(i) The Univs. mentioned in the list in Section E, *below*, including the following Colleges and Schools: *Durh.* Coll. of Med., Armstrong Coll.; *London*—St. Bart's, Charing Cross, St. George's, Guy's, London, St. Mary's, Middlesex, St. Thomas's, and Westminster Hospital Med. Schools, London (R.F.H.) School of Med. for Women, Univ., King's, Bedford, and Roy. Holloway Colleges, and the Imperial Coll. of Science; *Wales*—the Univ. Colls.; *St. And.*—Univ. Coll., Dundee; *Glas.*—Qu. Margaret Coll.; *Dub.*—Trinity Coll.; *N.U.I.*—the Univ. Colls.

(ii) Schools of Med. recognized by the Licensing Bodies: *Edin.*—Sch. of Med. of the Roy. Colls., Surgeons' Hall Sch., Med. Coll. for Women, Sch. of Med. for Women; *Glas.*—Anderson's Coll., St. Mungo's Coll., Western Med. Sch.; *Dub.*—Roy. Coll. of Surgeons, Schools of Surgery.

(iii) Other Teaching Institns. *recognized* by the Licensing Bodies and *approved* by the Council (S = School, C = College): Aldenham S.; Banbury Municipal S.; Bedford Grammar S.; Berkhamstead S.; Birkenhead, Holt S.; Birmingham, Munic. Tech. S., K. Edward's S.; Bradfield C.; Bradford Tech C.; Brighton Tech. Day C.; Bristol, Clifton C., Merchant Venturers' Tech. C.; Burslem, Wedgwood Inst.; Bury Grammar S.; Cambridge, Girton C., Newnham C.; Cheltenham C., Ladies' Univ. C.; Croydon, Whitgift Grammar S.; Darlington Tech. C.; Derby Tech. C.; Douglas (Isle of Man) Eastern Dist. Secondary S.; Dublin, R.C.Sc.I.; Eastbourne C.; Edinburgh Academy; Epsom C.; Eton C.; Exeter, Univ. C.; Felsted S.; Giggleswick S.; Godalming, Charterhouse S.; Gloucester Munic. Tech. S.; Grimsby Munic. C.; Guernsey, Elizabeth C.; Halifax Munic. Tech. S.; Harrow S.; Hertford, Haileybury C.; Huddersfield Tech. C.; Hull Munic. Tech. S., Hymers C.; Leamington Spa Munic. Tech. S.; Leeds Cent. Tech. S.; Leicester Munic. Tech. and Art S.; London, Battersea Polyt. Inst., Birkbeck C., Central Tech. C., Chelsea S.W. Polyt. Inst., City of London C., City of London S., Dulwich C., E. London C., Merchant Taylors' S., Royal Dent. Hospl., St. Paul's S., Westfield C., W. Ham Munic. Tech. Inst., Westminster S.; Long Eaton, Trent C.; Lytham, King Edward the Sixth S.; Malvern C.; Manchester Munic. S. of Tech.; Marlborough C.; Mill Hill S.; Norwich Tech. Inst.; Nottingham Univ. C.; Oundle S.; Plymouth Munic. S. of Science (Advanced Classes); Portsmouth Munic. C.; Preston, Harris Inst.; Reading C.; Repton S.; Rochdale Munic. Tech. S.; Salford Royal Tech. Inst.; Sherborne S.; Southampton, Hartley Univ. C.; Southend-on-Sea Tech. S.; Stafford County Tech. S.; Stonyhurst C.; Stourbridge, K. Edward VI S.; Swansea Tech. C.; Swindon Tech. S.; Tonbridge S.; Uppingham S.; Walsall Munic. Inst.; West Bromwich Munic. Secondary S.; Wolverhampton Grammar S.

Cape Town, S. African C.; Johannesburg, Transvaal Univ. C.

* In prescribed form, obtainable from the Registrar of the Council.

*** *The STUDENTS' REGISTRATION COMMITTEE is empowered to give provisional approval on behalf of the COUNCIL to other Teaching Institns. of the same status which may be hereafter recognized by Licensing Bodies. Other Med. Schools also may be added to the above Lists provided they are recognized by any of the Licensing Bodies.*

The addresses of the Registrars to whom applications for registration, &c., may be sent are: Genl. Med. Council, 299 Oxford St., London, W.; Branch Council for Scotland, 54 George Sq., Edinburgh; Branch Council for Ireland, 35 Dawson St., Dublin.

B. *Registration of Dental Students*

I. The Registration is carried on at the Council Office, in London, in the same manner as that of Med. students, and is subject to the same regns. as regards age and Prelim. examns., but professional study may commence by pupilage with a Registered Dental Practitioner.

II. Students who commenced their professional education by apprenticeship to Dentists entitled to be registered, or by attendance upon professional lectures, before July 22, 1878 (when Dental Education became compulsory), are not required to produce evidence of having passed a Prelim. examn.

III. Candidates for a Diploma in Dental Surgery should produce certificates of having been engaged during 4 yrs. in Professional Studies, and of having received 2 yrs. instruction in Mechanical Dentistry from a Registered Practitioner.

IV. One year's *bona-fide* apprenticeship with a registered Dental Practitioner, after being registered as a Dental Student, may be counted as 1 of the 4 yrs. of Professional Study.

V. The necessary 2 yrs. of instruction in Mech. Dentistry, or any part of them, may be taken by the Dental Student either before or after his registration as a student; but no year of such Mech. instruction may be counted as 1 of the 4 yrs. of Professional Study unless taken after registration.

Schools at which Dental Study may be Commenced: Birmingham D. Hospl.; Bristol, Royal Infirmary, Genl. Hospl.; Dublin, D. Hospl. of Ireland; Edinburgh D. Hospl.; Glasgow D. Hospl.; Leeds D. Hospl., Public Dispensary; Liverpool D. Hospl.; London, Guy's Hospl. D. School, London Hospl. D. School, National D. Hospl., Royal D. Hospl.; Manchester D. Hospl.; Newcastle-upon-Tyne D. Hospl.; Sheffield Royal Hospl.; Roy. Coll. of Surg. in Ireland; D. Department of any Univ. of the U.K.

C. *Medical Professional Education and Examinations*

I. Every course of Professional Study should contain (i) *Physics*, including Elem. Mechanics of Solids and Fluids, and rudiments of Heat, Light, and Electricity; (ii) *Chem.*, including the principles of the science, and the details which bear on the study of Med.; (iii) *Elem. Biol.*; (iv) *Anat.*; (v) *Physiol.*; (vi) *Mat. Med. and Pharmacy*; (vii) *Path.*; (viii) *Pharmacol. and Therap.*; (ix) *Med.*, including *Med. Anat.* and *Clin. Med.*; (x) *Surg.*, including *Surg. Anat.* and *Clin. Surg.*; (xi) *Midw.*, including *Dis. peculiar to Women and to new-born*

Children ; (xii) Theory and Practice of *Vaccin.* ; (xiii) *Forensic Med.* ; (xiv) *Hygiene* ; (xv) *Ment. Dis.* ; (xvi) *Anæsthetics.*

*** *The Regns. of the Examining Bodies should be so framed as to ensure that the study of the Final Group of Subjects* (vii *to* xvi *above*) *shall extend over a period of not less than* 24 *mos. after the passing of the examn. in Anat. and Physiol.*

II. The first 4 of the 5 yrs. of Medical study required before a qualification can be obtained should be passed at a School or Schools of Med. recognized by any of the Licensing Bodies enumerated in Schedule (A) of the *Med. Act* (1858) and subsequent Acts, provided : (*a*) That students who have passed the required Prelim. examn. in general education, and have during 6 mos. or more received instruction in *Chem.*, *Phys.*, or *Biol.* at one of the institns. mentioned in A, IV (iii) of this Appendix, may be held to have completed 6 mos. of the 1st yr. of Med. study. (*b*) That grads. in Arts or Science of any Univ. recognized by the Council who have spent a year in the study of *Phys.*, *Chem.*, and *Biol.*, and have passed an examn. in these subjects for the degrees in question, may be held to have completed the 1st of the 5 yrs. of Med. study.

III. The 5th yr. should be devoted to Clin. work at one or more Public Hospls. or Dispensaries, British or Foreign, recognized by any of the Med. authorities mentioned in Schedule (A) of the *Med. Act* (1858) and subsequent Acts.

IV. With regard to the Midwifery Practice to be required of candidates for a Licence to practise—

(i) Every student before commencing the study of Practical Midw. should have held the offices of Clin. Med. Clerk and Surg. Dresser, and should have attended a course of lectures on Surg. and Midw.

(ii) He should be required to furnish evidence * that he has conducted 20 cases of Labour under official Med. supervision subject to the following conditions, viz.—*either* (*a*) that he has previously given regular attendance for a period of 3 mos. upon the indoor practice of a Lying-in Hospl., or the lying-in wards of a Genl. Hospl., and has received practical instruction therein under the supervision of a Med. officer ; *or* (*b*) that he has previously given regular daily attendance for a period of 1 mo. upon the indoor practice of a Lying-in Hospl., or the lying-in wards of a Genl. Hospl., or Poor Law Infirmary having a resident Med. Officer, recognized by one of the Licensing Bodies, and that he has conducted cases of Labour therein, and has been certified by his instructor as competent to conduct outdoor cases under official Med. supervision.

V. Students should not be required to attend more than 3 lectures weekly in each systematic course. Due time should be set aside for Practical courses in which work is done by the student himself under the direction of a duly qualified teacher, and for Hospl. work, " Hospl.

* Namely, a Certif. in the form prescribed by the Council and signed by a member of the staff of a Lying-in Hospl., or the Maternity Charity of a Genl. Hospl., recognized by one of the Licensing Bodies, or of a Dispensary having an Obst. staff, or a Poor Law Infirmary having a R.M.O. similarly recognized.

Practice with Clinical Instruction" being specified as one of the requirements of the examining bodies. Regularity of attendance in the wards and out-patient depts. is essential. Every candidate for the Final Professional examn. should give evidence that he has had sufficient opportunities of practical study in such offices as those of Clin. Med. Clerk and Surg. Dresser either for in or out patients, Obst. Clerk, and in particular that he has given attendance at Post-mortem examns. No qualification in Med. should be granted without evidence of Clin. instruction in Infec. Diseases.

VI. 2 or 3 consecutive Professional examns. in the earlier subjects should be held antecedently to the Final examn. in Med., Surg., and Midw., fixed intervals of time intervening between them, and 24 mos. at least intervening between the passing of the last examn. in *Anat.* and *Physiol.* and admission to the Final examn.

VII. Examn. in the Elements of *Physics* (including Mechanics), *Chem.*, and *Biol.* should be passed before the beginning of the 2nd winter session. A student who has previous to registration attended a course or courses of study in Physics, Chem., Biol. (one or all) in any Univ., School of Med., or Teaching Institn. recognized by any of the Licensing Bodies, may without further attendance be admitted to examn. in these subjects; provided always that such course or courses shall not be held to constitute any part of the 5 yrs. course of Professional study.

VIII. All examns., except the Final examn. in Med., Surg., and Midw., should be passed before the commencement of the 5th yr. of Med. study, and the Final not before its close.

D. *Reciprocal Recognition*

The States, Presidencies, and Provinces in which the registrable qualifications specified in Statement F are granted all allow practitioners with qualifications registered in the U.K. to register without further examn. There are also other Colonies, *e.g.* the Provinces of S. Africa, which recognize British qualifications, but in which at present no qualifications are granted.

[A Report (4th edition pubd. in March 1912) as to the conditions under which Med. and Dent. practitioners registered or legally qualified in their own country may practise abroad is obtainable from the Council Office, price 1s. It contains, among other matters, the designations and addresses of the persons to whom application should be made for forms and further information.]

E. *The several REGISTRABLE QUALIFICATIONS, after the "Appointed Day" (June 30, 1887) named in the MEDICAL ACT (1886), now or formerly obtainable, and REGISTRABLE DIPLOMAS OR CERTIFICATES for Proficiency in SANITARY SCIENCE, PUBLIC HEALTH, or STATE MEDICINE*

[The name or symbol of the Licensing Body is followed by the symbols * of the Registrable Qualifications, Diplomas, and Certificates

* L. = Licentiate, F. = Fellow, M. = Member, L.M. = Licentiate in Midwifery, M.D. = Doctor of Med., B. = Bachelor of Med. and Bach. of

it confers, (*a*) * admitting primarily to the Register; (*b*) as supplementary Qualifications † in Med., Surg., or Midw.; (*c*) for Proficiency in San. Science, &c.]

Royal Colleges

R.C.P. Lond.: (*a*) L.; (*b*) F., M., L.
R.C.P. Lond. and R.C.S. Eng.: (*a*) L. and M.; (*c*) H.
R.C.S. Eng.: (*b*) F., M., L.M.
R.C.P. Edin.: (*b*) F., M., L.
R.C.S. Edin.: (*b*) F., L.
R.F.‡P. and S. Glas.: (*b*) F., L.
R.C.P. Edin., R.C.S. Edin., and R.F.P. and S. Glas.: (*a*) L.; (*c*) H.
R.C.P.I.: (*b*) F., M., L., L.M.
R.C.S.I.: (*b*) F., L., L.M.
R.C.P.I. and R.C.S.I.: (*a*) L.M.; (*c*) H.

Apoths.' Soc. of Lond.: (*a*) L., § L. in Med., Surg., and Midw.; (*b*) same.

Apoths.' Hall, Dub.: (*a*) L. ‖; (*b*) L.

Universities

Ox.: (*a*) M.D., B., S.; (*b*) M.D., B., L. in Med., S., B.Ch.; (*c*) H.
Camb.: (*a*) M.D., M.B., B.C.; (*b*) M.D., M.B., L. in Med., B.C., S.; (*c*) H., Dip. in San.
Durh.: (*a*) M.D., M.B.; (*b*) M.D., M.B., B.S., L. in Med., S.; (*c*) L. in San., Bach., and Doc. in Hygiene, H.
Lond.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) Certif. in Pub. Health, M.D. in St.
Manc.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) Dip. in San., H.
Birm.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Liv.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) Master of Hygiene.
Leeds: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Sheff.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Bris.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Wales: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Edin.: (*a*) M.D., B.; (*b*) M.D., M.B., Ch.B., S.; (*c*) Bach. and Doc. of Sc. in Dept. of Pub. Health.
Aberd.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Glas.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H., Bach. and Doc. of Sc. in P.H.
St. And.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Dub.: (*a*) M.D., B., L. in Med., L. in Surg.; (*b*) M.D., M.B., L. in Med., S., B.Ch., L. in Surg., Mast. in Obst.; (*c*) Dip. in St., H.
N.U.I.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.
Belf.: (*a*) M.D., B.; (*b*) M.D., B., S.; (*c*) H.

Surg., S. = Master of or in Surgery, M.B. = Bach. in or of Med., B.S. or B.C. or B.Ch. or Ch.B. = Bach. in or of Surg., San. = Sanitary Science, St. = State Medicine, H. = Diploma in Pub. Health.

* By sec. 2 of the *Med. Act* (1886) the Document presented in evidence of any of these must show that the possessor has passed a Qualifying Examn. in Med., Surg., and Midw.

† These may be added to Qualifications already registered.

‡ Faculty.

§ Obtained on or after July 1, 1887.

‖ Obtained on or after May 31, 1897.

F. *Statement showing* (i) *the several DEGREES granted in BRITISH POSSESSIONS which* (*pursuant to Section* 11 *of Part II of the Medical Act*, 1886) *are REGISTRABLE IN THE COLONIAL LIST, and* (ii) *the examinations held therein which are recognized by the Medical Council as Qualifying for the REGISTRATION OF MEDICAL OR DENTAL STUDENTS*

[The name of the Licensing or Examining Univ. or other Body is followed by (i) the titles of the registrable Qualifications in Medicine and Surgery, and (ii) the symbols of the examinations * recognized for registration of students.]

Adelaide : (i) M.B., Ch.B., M.D., Ch.M. ; (ii) Senr. Public—P.
Agra and Oudh, United Provs. of, Educn. Dept. : (ii) Leaving Certif. 50.
Allahabad : (ii) In. in Arts 50, Mc. 50.
Bombay : (i) Lic. Med. Surg., M.B., B.S., M.D., M.S. ; (ii) Mc.—P.
Calcutta : (i) Lic. Med. Surg., M.B., M.D., M.S. ; (i) Mc. 50 in the 1st Division ; In. or F.
Cape : (ii) Mc.—P., thereafter Mc. for students of Med.
Ceylon Med. Coll. : (i) Lic. Med. Surg. ; (ii) Prelim.—P.
Dalhousie (Halifax, N.S.) : (i) M.D., C.M. ; (ii) Mc.
†Halifax Med. Coll. : (i) M.D., C.M.
Hong-Kong : (i) M.B., B.S. ; (ii) Mc. in Med.
Laval : (i) M.D.
McGill : (i) M.D., C.M. ; (ii) Mc.
Madras : (i) ‡Lic. Med. Surg., M.B., M.S., M.D. ; (ii) In.
Malta : (i) M.D. ; (ii) Mc.—P.
Manitoba : (ii) Mc.
Melbourne : (i) M.B., M.D., B.S. ; (ii) M.
New Brunswick : (ii) Mc.—P.
N.Z. : (i) M.B., Ch.B., M.D. ; (ii) Prelim. for Med. Students.
Nova Scotia Provl. Med. Board : (i) Lic. Med. Surg. ; (ii) Prelim.—P.
Otago (affiliated to N.Z.) : (ii) Prelim. Med.
Ontario Univs. and Colls. : (ii) Departmental Arts Mc. (conducted under direction of Provl. Educn. Dept.)—P.
Panjab : (i) Lic. Med. Surg., M.B., M.D. ; (ii) In. in Arts—P.
Prince Edward I. Med. Council : (i) Lic. Med. Surg.
Sydney : (i) M.B., M.D., Ch.M. ; (ii) Mc. for the Faculty of Med. ; 1st yr. in Arts or Senr. Public (Certif. to include requisite subjects).
Tasmania : (ii) Senr. Pub. Examn.—P. (thereafter Spl. Certif. of pass in Prelim. in Med. at required standard to be exhibited).

* Mc. = Matriculation ; In. = Intermediate ; F. = Final ; 50 = to include the requisite subjects with an average of at least 50 per cent. ; P. = Provisional recognition for 1914.

† Obtained prior to Aug. 31, 1911.

‡ Provided professional study had been begun before Jan. 1, 1892.

APPENDIX II

UNIVERSITY CANDIDATES FOR COMMISSIONS IN THE ARMY

Extract from Regulations issued with Army Orders dated Feb. 1, 1912

1. *Commissions Granted.* Commissions in the Cavalry, the Royal Artillery, the Infantry, the Army Service Corps, and the Indian Army* will be granted to duly qualified candidates nominated each half-year by certain Universities.

2. *Recognized Universities.* In the first place a University must be recognized by the Army Council. The following is a list of Univs. which have been so recognized: Ox.; Camb.; St. And.; Glas.; Aberd.; Edin.; Dub.; Durh.; Lond.; Manc.; Wales; Birm.; Liv.; Leeds; N.U.I.; Belf.; Bris.; certain chartered Univs. in the Overseas Dominions.

3. *Universities empowered to Nominate.* Before a recognized Univ. can be permitted to nominate candidates, it will be required to establish a course of milit. instruction and obtain the approval of the Army Council thereto. The following is a list of Univs. which have established approved courses of instruction, and are therefore empowered to nominate candidates. This list is subject to such additions or alterations as the Army Council may from time to time determine. The Univs. are arranged in units (*a*, *b*, *c*, and *d*) for the allotment of commissions: (*a*) Ox.; (*b*) Camb.; (*c*) (1) Edin., (2) Dub., (3) Lond., (4) Manc.; (*d*) Univs. Overseas—McG., Syd.

4. *Nomination Boards.* Each approved Univ. or group of Univs. will appoint a Nomination Board, to which the War Office will add one or more milit. members who will have a veto on any selection. . . .

5. The commissions of nominated candidates will be *antedated* 18 mos. from the date on which their names appear in the *London Gazette*. A candidate who has graduated with 1st or 2nd class Honours may be granted such additional antedate, not exceeding 6 mos., as may be recommended by the Nomination Board and approved by the Army Council. These antedates will not count for pay or allowances. The additional antedate for 1st or 2nd class Honours will count for retired pay, but the ordinary antedate of 18 mos. will not so count.

6. *General Qualifications.* A candidate for nomination (*a*) must have attained the age of 21 and must not have attained the age of 25† on Jan. 15 for a winter nomination or July 15 for a summer nomina-

* Candidates selected for the Ind. Army will, in the first place, be gazetted as 2nd Lieuts. on the Unattached List, under the conditions set forth in the pamphlet "Information regarding Appointment, Promotion, Pay, &c., in H.M. Ind. Army." The grant of commissions in the Ind. Army is limited to candidates from Univs. in the U.K.

† A candidate for appointment to the Ind. Army must be within the ages of 21 and 24 on the dates named.

tion. (*b*) Must be unmarried. (*c*) Must be, in the opinion of the Army Council, in all respects suitable to hold a commission in the Regular Army. (*d*) Must produce a certif. of good conduct from the head or other competent authority of the Univ., or a Coll. of the same, in which he has resided.

7. *Academic Qualifications.* A candidate must (*a*) reside for 3 academic yrs. at an approved Univ. or at a Coll. of the same. (*b*) Take a degree in an approved subject or group of subjects. (*c*) A candidate for a commission in the Royal Artillery must produce evidence satisfactory to the Nomination Board that he has duly qualified in the Math. and Science subjects set forth in Appendix II.* A Nomination Board may exempt a candidate who has graduated with 1st or 2nd class Honours from producing evidence as to his Science qualifications.

At the Scot. Univs. a candidate must have graduated after a course of study extended over 3 academic yrs.

At the Univ. of London, and certain others where there are both internal and external students, a candidate must be an internal student, which is defined as "one who has completed a 3 yrs. course under recognized teachers."

8. *Approved Subjects for Degree.* Candidates may graduate in any of the subjects, or groups of subjects, current at the several Univs., with the exception of Theol., Med., Music, and Commerce.

9. *Military Qualifications.* A candidate for nomination must obtain the following milit. qualifications during his residence at his Univ.:

(1) He must undergo the milit. instruction which will form a part of the curriculum of his studies, and he will be required to qualify at the examn. in milit. subjects referred to in paras. 10–15.*

(2) He must be an efficient member of the Univ. contingent of the O.T.C. each year from the date of his registration as a candidate for a commission in the Regular Army.

(3) He must be attached † to a Regular unit and obtain a satisfactory certificate as to his proficiency (*see* Appendix IV).*

(*a*) The attachment will be for a period of 6 consecutive weeks in the case of a candidate who, by the date of nomination, will have been returned as an efficient member of the O.T.C. contingent in 2 or more years (*see* para. 62 O.T.C. Regns.). In cases where efficient service in the O.T.C. will not have amounted to 2 yrs. by the date of nomination, or where there is no O.T.C. contingent at the Univ., a 2nd period of attachment for 6 weeks may, on the recommendation of the Univ. authorities, be accepted in place of such service. A candidate who is appointed an officer on the establishment of his Univ. contingent of the O.T.C. may count his initial course as part of the required attachment to a Regular unit.

(*b*) A candidate who, prior to his registration as an Army candidate, holds a commission in the Special Reserve or Territorial Force will, on

* Not reproduced here.

† Before commencing this attachment a candidate will be required to have been instructed in squad drill (as laid down in Infantry Training).

registration as a candidate for a commission in the Regular Army, be attached to the Univ. contingent of the O.T.C. as a supernumerary, for such duties as the authorities of the corps may determine. Such a candidate will, if an officer of the Special Reserve, count his probationary training as equivalent to the required attachment to a Regular unit. If an officer of the Territorial Force, he will count 2 annual trainings as equivalent to 2 yrs. efficient service in the O.T.C.

(*c*) Application for attachment to a Regular unit should, in the case of all classes of candidates from Univs. in the U.K., be made (on the prescribed form), through the authorities of the Univ., to the Secy., War Office. Arrangements will then be made, firstly, for the candidate's appointment to a temporary commission on the unattached list of the Territorial Force, and, secondly, for his attachment to a Regular unit. In the case of an officer thus appointed to the unattached list of the Territorial Force the compulsory provision of uniform will be limited to the provision of service dress, with sword, &c.

(*d*) In the case of a student at a Univ. oversea, the attachment may be to a Regular unit or to a unit of the permanent forces of the Dominion and will be arranged between the Univ. authorities and the local section of the Imperial General Staff.

(*e*) During these periods of attachment no candidate will be eligible for an outfit allowance, nor will he receive either pay or allowances from Imperial Army funds (except as provided for the case of an Officer of the O.T.C.—*see* the Regns. for the O.T.C.).

Extract from Regulations issued with Army Orders dated Jan. 1, 1912

Royal Army Medical Corps

Qualifications

1. A candidate for a commission in the R.A.M.C. must be 21 and not over 28 yrs. of age at the date of the commencement of the entrance examn. and must be unmarried.

2. He must, at the time of his appointment, be registered under the Medical Acts in force in the U.K.

3. He must complete the form of application and declaration which can be obtained from the War Office, and submit it, together with an extract from the register of his birth and his Med. registration certif., to the Secy., War Office, as early as possible before the date on which the entries are closed.

4. The Dean, or other responsible authority, of the Med. School in which the candidate completed his course as a Med. student will be requested by the Dir.-Genl., Army Med. Service, to render a confidential report as to the candidate's character, conduct, professional ability, and fitness to hold a commission in the corps.

5. After the form of application and the confidential report above alluded to have been received, the candidate will be required to attend at the War Office about 2 days before the competition for the purpose of being interviewed and undergoing physical examn., and it will then

be decided if he may be allowed to compete for a commission in the R.A.M.C.

6. A candidate is not permitted to compete on more than 2 occasions.

7. The right of rejecting any candidate who may show a deficiency in his general education is reserved.

8. An entrance fee of £1 is required from each candidate admitted to the examn.

Extract from a Communication from the War Office dated Sept. 18, 1913

"Two candidates for the R.A.M.C. may be nominated annually by each of the Australian and Canadian Govts. Such candidates are required to meet the physical standard laid down as for other candidates and must be registered under the Medical Acts in this country."

APPENDIX III

MANCHESTER, LIVERPOOL, LEEDS, AND SHEFFIELD INTER-UNIVERSITY ARRANGEMENTS

1. THE Charters of these Univs. require the first 3 to consult each other and Sheffield to consult the first 3 before making or altering statutes or ordinances relating to the (*a*) titles of degrees; (*b*) establishment of new degrees; (*c*) periods of residence and study for degrees; (*d*) conditions for granting higher degrees; (*e*) courses and examn. subjects for Med. degrees. As regards Sheffield this requirement lapsed in 1912. Their Charters also empower them to co-operate with other Univs. and authorities. The Manc., Leeds, and Sheff. Charters specify the conduct of Matricn. examns., examn. and inspection of schools and other academic institns., and (Sheff. and Manc.) the extension of Univ. teaching and influence in academic matters, as suitable purposes of such co-operation.

2. Each of the Univs. is also required to co-operate with the others for the regulation and conduct of the Matricn. examns.

THE JOINT BOARD

Secretary's Office—24 Dover St., Manchester.

3. These 4 Univs. co-operate by means of a Joint Board in conducting and controlling the Matricn. examn. The Board is also prepared to undertake the inspection and examn. of Schools. On the results of such examns. and inspections Senior School Certificates (of Matricn. standard), School Certifs., and Housecraft Certifs. may be awarded. A Senior School Certif. is a Matricn. Certif. provided the conditions of the Matricn. examn. as to subjects are complied with. The *Calendar* of the Board for 1914 contains the Regns. together with examn. papers set in 1913, price 1s.; post, 1s. 3d. (J. E. Cornish, Ltd., 16 St. Ann's Sq., Manchester).

4. The Matricn. Certif. is *recognized* by (i) Ox.; (ii) Camb.; and (iii) Lond., subject to certain provisos:—(i) For exemption from the examn. in stated subjects at "Responsions" and admission of women candidates to the Honours examns.; (ii) for exemption from parts of the "Previous" examn.; (iii) for exemption from the Lond. Matricn. examn. It is accepted by the Scot. Univs. Joint Board in lieu of the Prelim. examns. in Med.; by the Genl. Med. Council for registration as a Med. student, if Latin and either Greek or a Mod. Lang. be included; by the Board of Educn. for admission to Training Colls. (for conditions, *v.* Board's Regns.); by the Law Soc. in lieu of the Prelim. examn. if Latin be included; by the Institn. of C.E. in lieu of the studentship examn. if it includes either Mechanics or Phys. or Chem., and either the higher alternative papers or the addl. paper in Maths.; by the Inst.C.A. in lieu of the Prelim. examn. except as to Dictation; by the Soc. of Incorp. Acctts. and Auditors in lieu of

the Prelim. examn.; and, as being "a public examn. of a Univ.," by the Inns of Court, R.I.B.A., and Inst. of Chem.

5. Conditions for *exemption* from the Matricn. examn.: A Univ. degree conferred after examn.; a Certif. of having passed a Lond. Interm. examn.; subject to certain provisos, Ox. Responsions, Camb. Previous, Lond. Matricn., Higher or School Certif. of Ox. and Camb. Schools Examn. Board, Ox. or Camb. Senior Local Certif., an Indian Univ. Certif. of having passed the First examn. in Arts, Sc., or Med., Scottish Educn. Dept. Leaving Certif., Central Welsh Board Senior Certif., Egyptian Ministry of Educn. Secondary Educn. Certif., Barristers' and Solicitors' qualifications. The Board has discretionary power of granting exemption to applicants who have passed examns. of a standard at least equal to those above mentioned.

6. The *subjects* in which candidates for entrance to the Faculties other than Med. are required to pass are: (1) Engl. Lang. and Lit.; (2) Engl. Hist.; (3) Maths.; (4) 3 of the following, including 1 language: (i) Greek; (ii) Latin; (iii) French; (iv) German; (v) some 1 other approved language (Arabic, Chinese, Hebrew, Ital., Pali, Pers., Portug., Russ., Sansk., Span.); (vi) Mechanics or Phys.; (vii) Chem.; (viii) Geog.; (ix) Nat. Hist. or Bot. For *Medicine* the subjects are (1), (2), (3), (ii), and 2 of the following, including 1 language: (i) to (ix), excluding (ii); but (*a*) candidates who have passed in 6 subjects not including Latin and either Greek or a Modern Language will be deemed to have passed for the Faculty of Med. provided they subsequently satisfy the examiners in the subject omitted; (*b*) a Certif. for registration by the Genl. Med. Council only will be issued to those who have satisfied the examiners in (1), (2), (3), (ii), and another language without passing the Matricn. examn., and they will be deemed to have passed the Matricn. examn. (Faculty of Med.) provided they subsequently satisfy the examiners in an additional subject in the Matricn. examn. For the Liverpool Faculty of *Engineering* the subjects are (1), (2), (3), with additional Maths. *or* the Higher alternative paper in Maths., (vi), and 2 of the following, including 1 language: (i) to (ix), excluding (vi); but candidates who have passed in 6 subjects not including additional Maths. and (vi) may pass in these subjects separately.

APPENDIX IV

(i) THE SCOTTISH UNIVERSITIES; (ii) THEIR JOINT BOARD OF EXAMINERS; (iii) THE CARNEGIE TRUST

(i) The Universities of Scotland

In constitution these 4 Univs. (St. Andrews, Glasgow, Aberdeen, and Edinburgh) have under the operation of the Univs. (Scotland) Acts, 1858 and 1889, been to a great extent assimilated. By the former Act 2 new bodies, called the Univ. Court and Univ. Council, were instituted. By the latter Act a Committee of H.M.'s Privy Council was constituted styled the Scottish Univs. Committee of the Privy Council, and an Executive Commission was created with extensive powers, which it continued to exercise till the end of 1897. These Commissioners issued ordinances, *inter alia*, for degrees, for the instruction and graduation of women, for special study and research, and for the constitution of a Students' Representative Council with power to petition the Senatus Academicus and the Univ. Court.

The *Chancellor* is elected (for life) by the Genl. Council, of which he is President. He is empowered to nominate a *Vice-Chancellor*, who may confer degrees in his absence, but cannot discharge any other of his duties. The Vice-Chancellorship is at the present time held in each Univ. by the *Principal*, who is appointed by the Crown and is President of the Senatus Academicus, and, in the absence of the Rector, of the Univ. Court. The *Rector* is elected every 3 years by the matriculated students. He is the official President of the Univ. Court.

The *University Court* consists of the Rector, Principal, the Lord Provost of the City (in St. And. the Provost of St. Andrews and Lord Provost of Dundee), and Assessors appointed by the Rector, Chancellor, Senatus, and General Council. In St. And. the Principals of St. Mary's Coll. and Univ. Coll., Dundee, are also included in it. There is provision for the representation of other affiliated Colls. The Court, which was by the Act of 1889 constituted a body corporate with full power to administer the property belonging to the Univ., is a Court of Appeal from the Senatus and has power, since the expiration of the powers of the Commrs. under the Act of 1889, to found new professorships with the approval of the Univs. Committee and make other ordinances with the approval of H.M. in Council. It has, *inter alia*, powers to appoint professors whose chairs are in the patronage of the Univ., examiners, and lecturers; to define the nature and limits of a professor's duties under his commission; and to recognize for graduation purposes the teaching of any Coll. or individual teacher, under the regns. providing for such recognition.

The *Senatus Academicus*, consisting of the Principal and the whole of the Profs., is entrusted with the regulation and superintendence of the teaching and discipline of the Univ. Subject to the review of the

Univ. Court it controls the administration of the Libraries and Museums.

The *General Council* consists of the Chancellor, the members of the Univ. Court, the Profs. and the Graduates of the Univ. It meets twice a year and may hold special meetings at the instance of the Chancellor. All proposed improvements in the arrangements of the Univ. must be submitted to the Council for their consideration. The Councils of St. And. and Edin. together return a *Member of Parliament.* So likewise do those of Glas. and Aberd.

"Scottish Education: School and University. From Early Times to 1908," with Addendum 1908-13 by John Kerr, is published by the Cambridge Press. Price 4s. 6d.

(ii) JOINT BOARD OF EXAMINERS OF THE SCOTTISH UNIVERSITIES

1. The members of this Board (constituted by ordinances of the Scot. Univ. Commrs.) are appointed annually, 2 Profs. or Lectrs. and 2 additional examiners by each Univ., to control and supervise the Prelim. examns. It sits for a year at each Univ. in rotation—Glas. 1914, Aberd. 1915, St. And. 1916, Edin. 1917. The Secretary of the Univ. Court of the Univ. at which the Board sits for the year is Convener, and the proper authority to apply to for exemption. Sets of the examn. papers (price 1s. each for Arts and Science Prelim. and Entrance Bursary and 6d. for Med.) may be obtained from James Thin, publisher, 50 South Bridge St., Edinburgh. The papers are set by the Board, and the same papers are used in all 4 Univs. Candidates may enter for the Prelim. examn. at any of the 4 Scot. Univs.

2. *Arts.* The subjects are (1) Engl.; (2) Latin or Greek; (3) Maths.; (4) 1 of the following: Greek or Latin (if not already taken), French, German, Ital. (or such other lang. as the Senatus may approve), Dynamics. There is a higher and a lower standard in Latin and Greek, and a higher, an Interm., and a lower in Maths. Candidates must pass on the higher standard in at least 1 of these 3 subjects and may pass on the lower in either or both of the remaining 2; subject to certain conditions relative to attendance.

3. *Science.* As for Arts, except that (1) French or German may be substituted for Latin or Greek, (2) Maths. must, subject to certain exceptions, be passed on the higher standard.

4. *Medicine.* The subjects are (1) Engl.; (2) Latin; (3) Maths.; (4) another language, namely, Greek, French, German, Ital., or such other language as the Senatus may approve: provided that in the case of a candidate whose native language is not Engl. an examn. in any other classical language—*e.g.* Sansk. or Arabic—may be substituted for an examn. in Latin, and an examn. in the student's native language may be substituted for an examn. in the additional language.

5. A candidate must pass in all the required subjects at 1 or not more than 2 examns., provided that he may offer himself for re-examn. as often as may be necessary to satisfy this condition.

6. *Exemption.* A degree in Arts, not being a degree *honoris causâ tantum* in any of the Universities of the United Kingdom or in any

Colonial or foreign Univ. specially recognized for the purpose by the Univ. Court, exempts from the Prelim. in *Science*. The following are also recognized as exempting from the Prelim. in *Arts and Science* either wholly *or partially*: A degree in Arts or Science, not honorary, in any of the Univs. of the U.K., from the Prelim. in Arts and Science respectively; Scotch Educn. Dept. Leaving Certificates (the examns. for these Certifs. are not subject to rule quoted in para. 5 above); Ox. and Camb. Schools Examn. Board Certifs.; Ox. and Camb. Local (Junior, Senior, and Higher) Certifs.; Birm. Matricn. examn. Certif.; as regards candidates from British Dominions overseas, evidence of having passed examns. which admit to Univs. or affiliated Technical Colleges in their home country (the acceptance of such evidence is subject to several provisos); as regards graduates in Arts of St. John's Univ., Shanghai, the Arts Curriculum examns.; Poona Coll. of Science Final examn. for degree in Engin. accepted for Science (Engineering) Preliminary; Anglo-Chinese Coll., Amoy, First-class Certifs.; various foreign Certifs. For details as to conditions under which exemption is granted reference should be made to the Regulations of the Joint Board, which contain information also as to exemption from the Prelim. examn. for *Medicine*. The foregoing summary is merely for the purpose of giving a general idea of the qualifications for exemption.

(iii) Carnegie Trust for the Universities of Scotland

The trust deed (June 7, 1901) conveys to the trustees bonds bearing interest amounting to $500,000 p.a. One half of the net income is to be devoted to (A) the improvement and expansion of the Universities of Scotland in the faculties of Science and Medicine, and extending opportunities for scientific study and research, and Technical or Commercial Univ. education; the other half to (B) assisting Scottish students in the payment of Univ. class fees. Any surplus not required for (B) in any year is to be devoted to (A). Institutions in Scotland recognized by the Executive Committee of the Trustees as preparing students for graduation or as providing technical or commercial education of University level are entitled to participate as regards (A) and their students as regards (B). Any surplus not required for (A) or (B) is to be devoted to Univ. Extension work. The Committee have framed regulations for the guidance of applicants for benefits under the trust.

The offices are at the Merchants' Hall, Hanover St., Edinburgh. Secretary—Sir W. S. M'Cormick.

Under the 2nd quinquennial scheme of distribution of grants to Univs. and Colls. the Univs. received £36,000 p.a. as follows: St. And., £7500; Glas., £10,000; Aberd., £8000; and Edin., £10,500. Similar sums have been allocated under the 3rd quinquennial scheme adopted in 1913.

Research Fellowships, Scholarships, and Grants awarded for 1912–13 were distributed over the 4 Univ. centres thus: St. And., 18, worth £1465; Glas., 50, worth £3508; Aberd., 24, worth £1799; Edin., 42, worth £3197; total, 134, worth £9969. The expenditure on the

Laboratory of the R.C.P. during the year 1912–13 was £2006 8s. 5d., and the number of workers prosecuting research therein was 21. The annual report of the Exec. Committee contains reports of experts on the work of beneficiaries and lists of papers published by them.

The Regulations for Assistance in the payment of Class fees provide, *inter alia*, that applicants should hold the Leaving Certif. of the Scotch Educn. Dept. bearing evidence of such preliminary education as is required by the Univs. for their respective graduating curricula. Where for satisfactory reasons such Leaving Certif. has not been obtained, the Exec. Committee may accept instead what they deem equivalent evidence of attainments, provided that no applicant will be considered eligible who has to pass any further examn. before completing his graduating curriculum. Of the new beneficiaries for the Winter Session 1912–13, 87 per cent. had obtained a full Leaving Certif. The total class fees paid for 1912–13 amounted to £43,896, as follows: St. And., £3920 for 347 beneficiaries; Glas., £16,409 for 1480; Aberd., £8902 for 754; Edin., £14,665 for 1278.

APPENDIX V

(i) INDIAN UNIVERSITIES AND THEIR AFFILIATED COLLEGES. (ii) THE INDIAN INSTITUTE OF SCIENCE. (iii) INDIAN STUDENTS AT THE HOME UNIVERSITIES.

(i) Universities and Affiliated Colleges

1. The Indian Universities Act VIII of 1904 of the Legislative Council of India, which amended the law relating to the 5 Univs. at Allahabad, Bombay, Calcutta, Madras, and (the Univ. of the Panjab) Lahore, provides (*sec.* 4) that the Body Corporate, consisting of the Chancellor, Rector (Calc. only), Vice-Chancellor, *ex-officio* and ordinary Fellows, shall be the Senate of the Univ. The executive government of the Univ. is vested (*sec.* 15) in the Syndicate, consisting of the Vice-Chancellor, the Director of Public Instruction for the Province (in the case of All. the Directors for the United and Central Provinces), and from 7 to 15 *ex-officio* or Ordinary Fellows elected by the Senate or by the Faculties ; a number not falling short by more than one of a majority of the elected members must be Heads of or Professors in Affiliated Colleges.

2. The powers of the Syndicate are defined by Regns. and include such as the following : To appoint or nominate examiners and other officers and servants of the Univ. ; to order examns. and declare their results ; to administer the funds and keep the accounts of the Univ. ; and, generally, to conduct the affairs of the Univ., subject to the revision and control of the Senate.

3. The constitution and abolition of Faculties rests with the Senate. Regns. in regard to courses of study and examns. are drafted, text-books are recommended, and reports and recommendations on matters connected with the several branches of study are made to the Syndicate by the Faculties or Boards of Studies constituted by the Faculties.

4. Save on the recommendation of the Syndicate, by special order of the Senate, and subject to any regns. made in this behalf, no person may be admitted as a candidate at any Univ. examn., other than an examn. for Matricn., unless he produces a Certif. from a Coll. affiliated to the Univ. to the effect that he has completed the course of instruction prescribed by regn. (*sec.* 19).

5. A Coll. applying for affiliation has to satisfy the Syndicate as to the managing agency, qualifications of the teaching staff, and the conditions of their tenure of office, provision for residence of students, equipment, financial resources, suitability of fees, &c. (*sec.* 21).

6. On receipt of such an application the Syndicate causes a local inquiry to be made and reports to the Senate. Thereafter the proceedings are submitted, in the case of Calc. to the Govt. of India, and in other cases to the Local Govt. Where an application is granted

the order of Govt. specifies the courses of instruction in respect of which the Coll. is affiliated (*sec.* 21).

7. Every affiliated Coll. must furnish such reports, returns, and other information as the Syndicate may require to enable it to judge of the efficiency of the Coll.

8. The Syndicate causes every affiliated Coll. to be inspected from time to time and may call upon any Coll. so inspected to take within a specified period such action as may appear necessary in respect of any of the matters referred to in para. 5 above (*sec.* 23).

9. Sec. 26 of the Act requires the Senate of each of the Univs. to submit for the sanction of Govt. a revised body of regns. Regns. framed in pursuance of the provisions of this section have been sanctioned for all the Univs.

(ii) The Indian Institute of Science

[Opened July 24, 1911]

Patron—H.E. the Viceroy of India.

Director—Prof. Morris W. Travers, D.Sc. Lond., F.R.S.

Professors, &c.

General Chemistry—Prof. : The Director.

Asst. Prof. : H. E. Watson, B.Sc. Lond., A.I.C.

Organic Chemistry—Prof. : J. J. Sudborough, D.Sc. Lond., Ph.D. Heid., F.I.C.

Applied Chemistry—Prof. : N. S. Rudolf, M.Sc. Manc. and Liv., F.I.C.

Electrical Technology—Prof. : A. Hay, D.Sc. Edin., M.I.E.E.

Asst. Prof. (*Mechanical Engineering*) : J. H. C. Kann, B.Sc.

French and German—Lectr. : C. F. H. Tacchella, B.A. Dub.

This is a post-graduate university institution and has for its particular object the promotion of advanced studies and original research with special regard to the interests of India. It is the policy of the Council to make, in the first instance, full provision for study and research in such branches of Pure and Applied Science as are more directly applicable to Indian Arts and Industries. While financial considerations prohibit the Council for the time being from adopting a wider policy, they will be glad to receive and administer donations or endowments for any purpose coming within the scope of a university.

The scheme annexed to the order under the Charitable Endowments Act, 1890, under which the endowment properties are vested in the Treasurer of Charitable Endowments for Bombay, provides *inter alia* for the conferment of the titles of Fellow and Associate and their endowment and the granting of certificates to students.

(iii) Indian Students at the Home Universities

In view of the difficulties often experienced by Indian students coming to England, the Secy. of State for India has established an

organization under a Secy. for Indian Students (C. E. Mallet) at the India Office, with local Advisers to assist him in London, Oxford, Cambridge, Manchester, Edinburgh, and Glasgow, with a Bureau in London for the supply of information on educational matters, a central Committee in London for general Advisory purposes, and local Advisory Committees in India (Allahabad—Secy.: R. K. Sorabji, M.A., Bar.-at-Law; Ajmer—Secy.: The Commissioner, Ajmer-Merwara; Bombay—Secy.: Prof. F. M. Dastur, M.A., 75 Hornby Road; Calcutta—Secy.: N. C. Sen, M.A., c/o the Registrar; Dacca—Secy.: B. N. Das, M.A., B.Sc.; Gauhati—Secy.: G. Barooah; Lahore—Secy.: S. K. Datta, Forman Christian College; Madras—Secy.: A. Davies, M.A., Bar.-at-Law, Smith's Gardens, Poonamallee Road; Nagpur—Secy.: S. R. Pandit, Bar.-at-Law; and Patna—Secy.: V. H. Jackson, Patna College). The Bureau in London, at 21 Cromwell Road, South Kensington, is the headquarters of the Educational Adviser in London—T. W. Arnold, C.I.E.—and serves as a centre and meeting-place for Indian students. A short pamphlet, giving a detailed account of this house, can be obtained in London or from the Advisory Committees in India, and a Handbook of Information for Indian Students relating to University and Professional Studies, &c., in the U.K. has been published by the Committee of the National Indian Assocn. in conjunction with the Advisory Committee, India Office, price R.1 (in England 1s. 4d.), 14th edition 1913.

APPENDIX VI

(i) CANADIAN DEGREES IN DIVINITY. (ii) NOVA SCOTIA TECHNICAL COLLEGE, HALIFAX. (iii) THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING.

(i) Degrees in Divinity for Students belonging to the Anglican Church in Canada

The Church Universities and Theological Colleges in Canada having entered into an agreement to adopt a uniform standard for degrees in Divinity, all such degrees are now only conferred in accordance with Canon X of the General Synod of Canada. They are granted by the Metropolitan of Canada (who has been appointed a corporation sole for this purpose), and only on examination by a Joint Board, including the Archbishop of Ottawa (Chairman) and representatives of King's Coll., Windsor; Bishop's Coll., Lennoxville; Trinity Coll., Toronto; Huron Coll., London, Ont.; Montreal Diocesan Theological Coll.; Wycliffe Coll., Toronto, &c. The examns. are held at the Univs. and Colls., and the degrees are conferred by representatives of these institutions acting for the Metropolitan.

(ii) Nova Scotia Technical College, Halifax

At a meeting held in Halifax in June 1908 attended by representatives of the N.S. Technical College and the Univs. of Acadia, King's, Mt. Allison, Dalhousie, and St. Francis Xavier, it was arranged that the College should confine its attention so far as *Engineering* is concerned to the 3rd and 4th years' work, leaving that of the 1st and 2nd to be done in the Univs. Uniform syllabuses for Matriculation and for the 1st and 2nd years of the Engineering course were agreed upon: a student who takes a combined Arts and Engineering course in one of these Univs. without passing the Engineering Matriculation will require 3 years work to complete the first 2 years of the Engineering course.

(iii) The Carnegie Foundation for the Advancement of Teaching, 576 Fifth Avenue, New York City

The object of the Foundation, as outlined in its Act of Incorporation, is to provide retiring allowances and pensions, and, "in general, to do and perform all things necessary to encourage, uphold, and dignify the profession of the teacher and the cause of higher education." The seventh Annual Report of the Foundation, dated Oct. 1912, stated that the following classes of persons are eligible for retiring allowances: (1) A person in an institution on the accepted list who is 65 years of age and has served not less than 15 years as professor, or not less

than 25 years as instructor or as prof. and instructor ; (2) a person in such an institution who has served 25 years as prof. or 30 years as instr. or as prof. and instr., and who is shown by medical examn. to be entirely unfitted by disability for continuing the work of teacher ; (3) a widow who has for 10 years been the wife of any teacher of class (1) or (2) ; (4) a prof. who has research in view, and has shown himself unmistakably fit to pursue it. No retiring allowance has yet been granted in class (4).

The list of accepted institutions includes the following Canadian Universities : DALHOUSIE, McGILL (the Principal of which is Chairman of the Board of Trustees of the Foundation), and TORONTO. Up to Sept. 1912, 519 allowances had been granted, including 17 in Canada and 2 in Newfoundland.

In addition to its work in connexion with the payment of pensions the Board of Trustees has undertaken to aid the exchange of Teachers between Prussia and the U.S.A. and the issue of various publications. The Annual Reports include discussions of various questions connected with teaching institutions. Separate bulletins have been published on Financial Reports of Colleges, Univs., and Tech. Schools ; Medical Educn. in the U.S. and Canada ; Academic and Industrial Efficiency ; Medical Educn. in Europe ; and two others which are out of print.

APPENDIX VII

CONCESSIONS BY STEAM NAVIGATION COMPANIES TO AUSTRALASIAN GRADUATES AND EDUCATIONAL OFFICERS TRAVELLING BETWEEN AUSTRALIA AND THE UNITED KINGDOM

IN the sections relating to the Australasian Universities reference has been made to the offers of the Orient Royal Mail Line and, in the case of N.Z., the Union S.S. Co. and Huddart Parker Co. of free first-class return passages in favour of graduates proceeding to Europe for study. The passages are available during the months of May to Sept., both inclusive, to Europe, and during March to July, both inclusive, outward from Europe. The Orient Line have also made a concession to Educational officers of Universities of Australia and of the United Kingdom.

APPENDIX VIII

TEACHERS' REGISTRATION COUNCIL

Secretary : Frank Roscoe, 2 Bloomsbury Sq., London, W.C.

THE following is a summary of the conditions of Registration :

I. ATTAINMENTS. The applicant must have obtained a certificate of having passed all the examns. for a degree of a Univ. approved by the Council for this purpose or one of several other specified qualifications.* *Exception :* This condition will not apply in the case of teachers who have had not less than 3 academic years experience as recognized teachers in Univs. and Institns. of Univ. rank, approved by the Council for this purpose.

II. TRAINING IN TEACHING. The applicant must have completed successfully a course, extending over at least 1 academic year or its equivalent, of training in the principles and methods of teaching, carried on under conditions approved by the Council and accompanied by practice under supervision. This condition is subject to the same *exception* as condition I. It may be modified in other cases where an applicant satisfies the Council that facilities for the prescribed training do not exist.

III. EXPERIENCE. The applicant must have had a period of experience as a teacher in educational institns. accepted for the purpose by the Council. The period required varies according to circumstances, but must in no case be less than 3 academic years, of which 2 must have been in one institn. or under one governing body unless the whole period has been spent in not more than 2 institns. The certif. of experience must be accompanied by satisfactory evidence of having shown fitness for the teaching profession.

IV. AGE. At least 25 years.

V. FEE. £1 1s. (a single payment. No annual fee).

VI. TEMPORARY PROVISION. Up to and including Dec. 31, 1918, the Council will be prepared to consider applications for registration from experienced teachers who are unable to satisfy fully the requirements of Conditions I, II, and III. The period of experience required in such cases will vary according to circumstances, but will not be less than 5 years unless the applicant has had a year's training as described in condition II.

* In cases where the degree (or other qualification) has been obtained in respect of a technological subject, the Council will require evidence that the applicant has, after attaining the age of 16, spent not less than 36 calendar months in the practice of the profession or industry concerned. Of this period at least 12 mos. must be concurrent with or subsequent to the course for the degree (or other qualification) held.

APPENDIX IX

SOME SOURCES OF INFORMATION REGARDING UNIVERSITIES, BRITISH AND FOREIGN

(i) THE Report of Proceedings of the Congress of the Univs. of the Empire, 1912 (Hodder and Stoughton, 10s. net), contains addresses, discussions (in which high authorities participated), and reports on the following subjects :

(*a*) Representation of Teachers and Graduates on GOVERNING BODIES (Paper by Sir J. Donaldson of St. Andrews).

(*b*) SPECIALIZATION among Univs. (Papers by Sir A. Hopkinson of Manchester and T. H. Warren of Oxford).

(*c*) Conditions of ENTRANCE (Paper by P. E. Matheson of Oxford).

(*d*) INTERCHANGE OF TEACHERS (Paper by J. W. Barrett of Melbourne).

(*e*) TECHNICAL AND PROFESSIONAL Education (Papers by A. Smithells of Leeds and S. M. Leathes, First Civil Service Commissioner).

(*f*) Arrangements for POST-GRADUATE AND RESEARCH students (Paper by W. Peterson of McGill). Some account of the (1851) *Exhibition Science Research Scholarships, Gilchrist Studentships, British Schools at Rome and Athens* in appendices. "Regulations for Science Scholarships" and "Prospectus of Whitworth Scholarships and Exhibitions" are published by the Board of Education, 1d. each. Information about the studentships (probably 7 worth from £100 to £175 each, tenable in Germany) to be awarded for 1914–15 to Univ. graduates of British nationality by the *King Edward VII. British-German Foundation* may be obtained from the Hon. Secy., Denison House, Vauxhall Bridge Rd., London, S.W. For *Rhodes Scholarships, v. supra*, p. 412 ; *Carnegie Trust, v.* Appendix IV.

(*g*) RESIDENTIAL facilities (Paper by E. B. Sargant, member of the Royal Commission on Univ. Educn. in London).

(*h*) Position of WOMEN (Paper by Miss H. M. White of Alexandra College, Dublin). An account of arrangements for the admission of women to the chief Univs. in the British Empire and Foreign Countries by M. E. Sadler and J. W. Longsdon is included in Vol. I of Special Reports to the Board of Educn.—now out of print.

(*i*) APPOINTMENTS BOARDS (Papers by H. A. Roberts of Cambridge and Miss M. G. Spencer, of the Central Bureau for the Employment of Women and of the Students' Careers Association).

(*j*) Provision for other than Degree students, including UNIV. EXTENSION AND TUTORIAL CLASSES and specialized courses for students engaged in professional, commercial, or industrial pursuits (Joint Paper by J. A. R. Marriott of Oxford and D. H. S.

Cranage of Cambridge). *See also* pp. 105 and 272 of this Yearbook; for a full account of *Tutorial Classes* see the book by A. Mansbridge, pubd. in 1913 by Longmans, 2s. 6d. net.

(*k*) EXCHANGE OF PUBLICATIONS.

(*l*) CENTRAL BUREAU (Paper by G. R. Parkin, of the Rhodes Scholarship Trust).

(*m*) UNIVERSITIES IN THE EAST: their influence on character (Papers by Sir F. D. Lugard, late Govr. of Hong-Kong, and J. C. R. Ewing of Lahore, Panjab). *See also* Appendix V.

(ii) Existing Endowments, Faculties, and Professoriate of Univs. THROUGHOUT THE WORLD are given in "Minerva Jahrbuch der gelehrten Welt," Trübner, Strassburg; histories, organization, &c., in the companion vol.—"Handbuch der gelehrten Welt." "Univs. of the World," by C. F. Thwing, President, W. Reserve Univ., Cleveland, U.S.A. (Macmillan, N.Y., 1911), contains sketches of 20 Univs. intended to give some idea of the Higher Education of the World.

(iii) Univs. and Univ. Colls. in GREAT BRITAIN in receipt of grants from the Board of Education submit reports which the Board publishes annually. The information is chiefly under the following heads: Objects, Governing Bodies, Site, &c., Residential Accommodation, Tenure, Conditions of Admission, Educational Work, Staff (salaries, new appointments, methods of appointment, &c.), Students (previous education, area whence drawn, residential arrangements, cost of living, corporate life, after careers), Fees, Relations with other bodies, Fellowships, Scholarships, &c., Income and Expenditure (Wyman and Sons, Ltd., Fetter Lane, London, E.C., 2s. 4d.).

(iv) Special Reports published by the Board of Education include one (vol. 25, 1912, 1s. 9d.) on the "Univs. in the OVERSEAS DOMINIONS," containing Notes on Univ. constitutions, Organization of the Univs., Receipts and Expenditure, and Courses of study for Degrees and Diplomas. Other special Reports have been published on *American* Univs. (No. 7 in vol. 11, 1902; 2s. 11d. the whole vol.), *French* Univs. (No. 22 in vol. 2, 1898, 5½d.), and on the Educational systems of the *Overseas Dominions*, of *Egypt*, the *U.S.A.*, and most of the countries of *Europe*.

(v) Some recent authorities on the Univs. of EUROPE—Rashdall, "The Univs. of Europe in the Middle Ages," Oxford, 1895. *Austria*—von Mannagetta and von Kelle, "Die Österreichischen Universitätsgesetze," Vienna, 1906. *Belgium*—L. Beckers, "L'Enseignement supérieur en Belgique," Brussels, 1904. *France*—[*see also* para. (iv)], L. Liard, "L'Enseignement supérieur en France, 1789–1894," Paris, 1894; W. Lexis, "Die neuen französischen Univ.," Munich, 1901. *Germany*—F. Paulsen, "Gesch. des gelehrten Unterrichts," Leipzig, Engl. transln. by M. E. Sadler, London, 1906; W. Erman and E. Horn, "Bibliographie der Deutschen Univ.," Leipzig, 1904–06.

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SOUTH AMERICA. J. v. Gonzalez, "Univ. y Colegios," Buenos Aires, 1907.

(vi) Recent publications on UNIVERSITY REFORM: "Principles and Methods of Univ. Reform," Report of the Hebd. Council, with Introduction by Lord Curzon, Ox. Univ. Press, 1909, 1s. 6d. net. "Univ. Reform," by Lord Curzon, Ox. Univ. Press, 2s. 6d. net. "A History of Univ. Reform from A.D. 1800 to the present time, with suggestions towards a complete scheme for the Univ. of Cambridge," Heffer, 1913, 10s. net. Report of the Royal Commission on Univ. Educn. in London, 1913, Wyman and Sons, 2s.

(vii) The *University Review*, London, 1905 to 1909, contains numerous articles on Univ. history, activities, and problems, and newsletters from Univs. of Great Britain and America.

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